

**SOUTHDALE OFFICE COMPLEX
6800 BUILDING**

EDINA, MINNESOTA

(W.R. GRACE)

**SUMMARY OF ASBESTOS
FIREPROOFING MANAGEMENT,
REMOVAL AND REPLACEMENT NET COSTS**

Prepared By

Halliwell Engineering Associates, Inc.

July, 1996

**SOUTHDALE OFFICE COMPLEX
6800 BUILDING
EDINA, MN
(W.R. GRACE)**

TABLE OF CONTENTS

SECTION I: INTRODUCTION

- A. BUILDING EXTERIOR PHOTOGRAPH**
- B. ASBESTOS FIREPROOFING REMOVAL STATUS DRAWING**
- C. BUILDING INFORMATION SUMMARY**
- D. INFORMATION CONSIDERED IN THE DEVELOPMENT OF THIS REPORT**

SECTION II: SUMMARY OF COSTS

- TABLE 1 SUMMARY OF ASBESTOS FIREPROOFING IN-PLACE MANAGEMENT, REMOVAL AND REPLACEMENT NET COSTS**
- TABLE 2 SUMMARY OF ASBESTOS FIREPROOFING REMOVAL AND REPLACEMENT NET COSTS PRIOR TO BUILDING SALE**
- TABLE 3 DETAILED COSTS FOR COMPLETED ASBESTOS FIREPROOFING REMOVAL AND REPLACEMENT PROJECTS PRIOR TO BUILDING SALE**
- TABLE 4 DETAILED COSTS FOR COMPLETED ASBESTOS FIREPROOFING IN-PLACE MANAGEMENT PROJECTS PRIOR TO BUILDING SALE**
- TABLE 5 ANALYSIS OF THE SALES DISCOUNT DUE TO ASBESTOS IN THE BUILDING**
- TABLE 6 INTEREST CHARGES**
- TABLE 7 MISCELLANEOUS RELATED COSTS NOT INCLUDED IN THIS REPORT**

SECTION III: STATEMENT OF OPINIONS

**SOUTHDAL E OFFICE COMPLEX
6800 BUILDING
EDINA, MN
(W.R. GRACE)**

TABLE OF CONTENTS (cont'd)

SECTION IV: QUALIFICATIONS OF HALLIWELL ENGINEERING ASSOCIATES, INC. AND JACK L. HALLIWELL (SUBMITTED UNDER SEPARATE COVER)

- A. MR. HALLIWELL'S CURRENT CURRICULUM VITAE**
- B. HALLIWELL ENGINEERING ASSOCIATES INC; SUMMARY OF EXPERIENCE AND CAPABILITIES**
- C. MR. HALLIWELL'S PRIOR TESTIMONY RECORD**
- D. ARTICLES ON ASBESTOS ABATEMENT AND MANAGEMENT AUTHORED BY MR. HALLIWELL**
- E. COMPENSATION SCHEDULES FOR MR. HALLIWELL AND HALLIWELL ENGINEERING ASSOCIATES, INC.**

APPENDICES:

APPENDIX A

- PART A: ASBESTOS ABATEMENT PROJECT INFORMATION**
- PART B: BUILDING INSPECTIONS CONDUCTED BY HALLIWELL ENGINEERING ASSOCIATES**
- PART C: LOCATION AND DETAILS OF INFORMATION CONSIDERED IN THE DEVELOPMENT OF THIS REPORT**

APPENDIX B PROJECT FLOOR AREA/FIREPROOFING AREA CALCULATIONS

APPENDIX C REDUCED BUILDING DRAWINGS

APPENDIX D SUMMARY OF ASBESTOS CONTAINING THERMAL SYSTEM INSULATION (TSI) PROJECT COST DEDUCTIONS

**SOUTHDAL E OFFICE COMPLEX
6800 BUILDING
EDINA, MN
(W.R. GRACE)**

TABLE OF CONTENTS (cont'd)

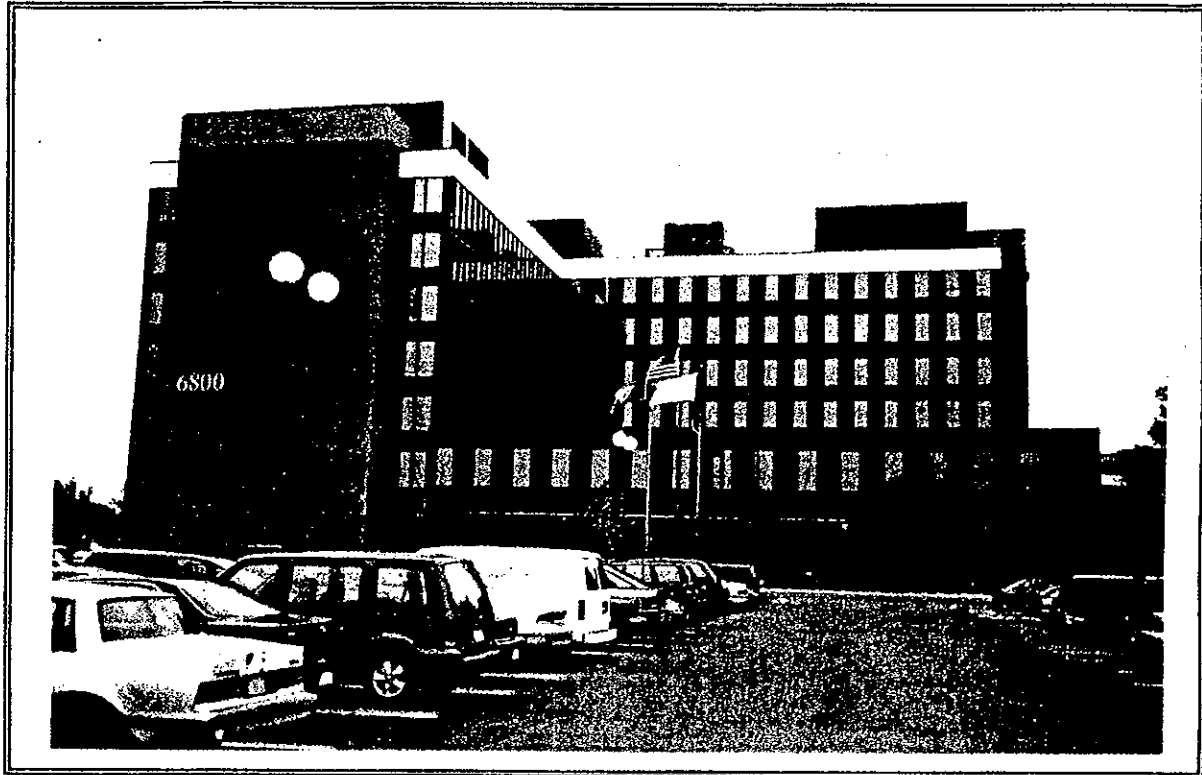
APPENDIX E	PURCHASE AGREEMENT EXCERPTS
APPENDIX F	PURCHASE AGREEMENT SIDE LETTER
APPENDIX G	SUMMARY FROM MAY 1988 INSPECTION PROFILE BY INSTITUTE FOR ENVIRONMENTAL ASSESS- MENT (IEA)
APPENDIX H	AUGUST 23, 1989 IEA LETTER REPORT
APPENDIX I	GENERAL LEDGER JANUARY 1, 1990 THROUGH DECEMBER 31, 1995

SECTION I

SECTION I

INTRODUCTION

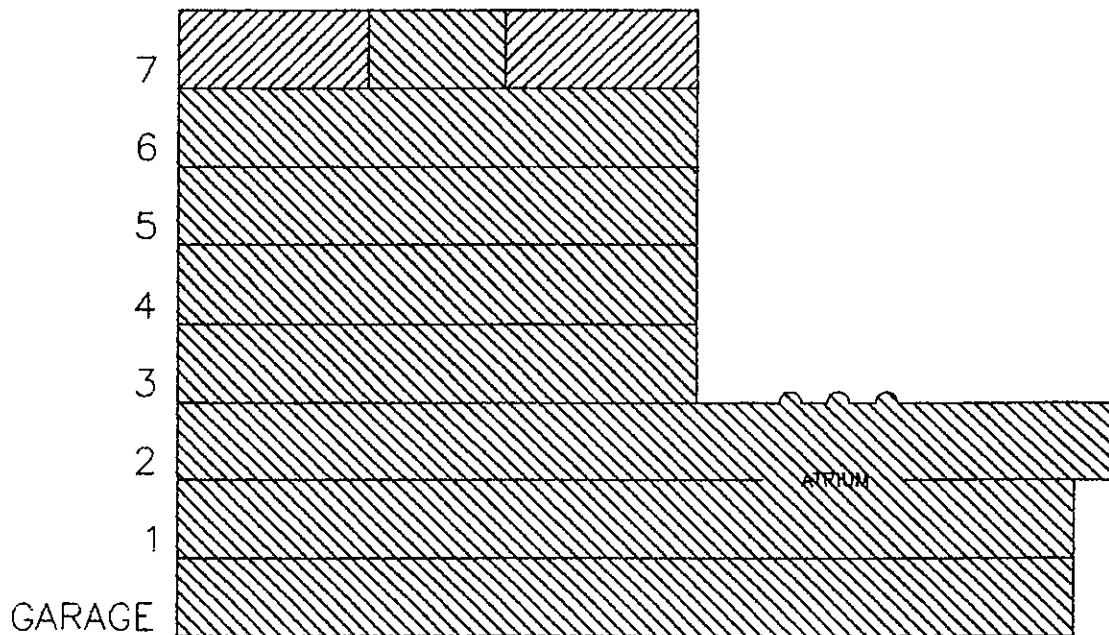
A) BUILDING EXTERIOR PHOTOGRAPH





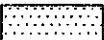
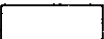
**Southdale Office Complex
6800 Building
Edina, Minnesota**

B. ASBESTOS FIREPROOFING REMOVAL STATUS DRAWING

SOUTHDALE OFFICE COMPLEX
6800 BUILDING
MINNEAPOLIS, MINNESOTA



LEGEND:

	FIREPROOFING REMOVED PRIOR TO SALE
	FIREPROOFING REMOVED AFTER SALE
	FIREPROOFING REMAINS
	FIREPROOFING NEVER APPLIED

C. BUILDING INFORMATION SUMMARY

Building name: The Southdale Office Complex consists of 4 buildings; 6600 Building, 6700 Building, 6750 Building and 6800 Building. Only the 6800 Building had asbestos containing fireproofing and is, therefore, the only building being considered by this report.

Location: Edina, Minnesota

Ownership: All 4 buildings sold by The Prudential Insurance Company of America (11/3/89)

Building use: Multi-tenant commercial offices

Total number of floors: 8; garage, 1st through 7th

Number of floors with spray-applied fireproofing: 8; garage through 7th floor

Total floor area with fireproofing: 209,667 sq. ft.

Original location of fireproofing: Beams and columns with over-spray on bar joists and deck

Type of deck: Corrugated steel

Core area: Elevator shafts, bathrooms and plumbing chases contain spray-applied fireproofing; the east and south perimeter HVAC shafts also contain spray-applied fireproofing. Stairwells do not contain spray-applied fireproofing.

Fireproofing surface area on a typical floor: 14,328.32 sq. ft.

Fireproofing surface area to floor area ratio (typical floor): $14,328.32 \div 19,910 = 0.72$

Type of HVAC system: There are two MERs - one each in the garage and penthouse. Original system was constant volume with reheat coils supplying interior ceiling diffusers and perimeter slot boxes. System converted to VAV beginning in 1986. Ceiling space is a return air plenum.

D. INFORMATION CONSIDERED IN THE DEVELOPMENT OF THIS REPORT

1. Building Information:

Building design drawings
Asbestos surveys
Asbestos management plan
Purchase and sales agreement; closing documents
Correspondence
Building inspections
Photographs and photo logs
Discussions with building personnel

2. Asbestos Abatement Cost Information:

Contractor's bid forms
Bid evaluation
Contract documents
Consultant's invoices
Contractor's applications for payment
Change orders
Correspondence

3. Asbestos Abatement Project Information:

Contract documents

Abatement specifications

Abatement meeting notes

Consultant's final report

Correspondence

Federal and state asbestos regulations

4. Building Sale Information:

Cost estimates

Surveys

Environmental audits

Purchase Agreement

Purchase Agreement side letter

Post-sale General Ledger, 1990-1995

SECTION II

SECTION II

SUMMARY OF COSTS

TABLE 1

**SOUTHDAL E OFFICE COMPLEX
6800 BLDG
Edina, MN
(W.R. Grace)**

**TABLE 1
SUMMARY OF ASBESTOS FIREPROOFING
IN-PLACE MANAGEMENT, REMOVAL AND REPLACEMENT NET COSTS**

ASBESTOS FIREPROOFING REMOVAL AND REPLACEMENT NET COSTS PRIOR TO BUILDING SALE	=	\$542,892.57
COMPLETED ASBESTOS FIREPROOFING IN-PLACE MANAGEMENT COSTS PRIOR TO BUILDING SALE	=	34,011.81
NET SALES DISCOUNT DUE TO THE PRESENCE OF ASBESTOS FIREPROOFING*	=	<u>5,162,567.00</u>
TOTAL NET COSTS ATTRIBUTABLE TO ASBESTOS FIRE- PROOFING MANAGEMENT, REMOVAL AND REPLACEMENT	=	<u>\$5,739,471.38</u>

* The Prudential Insurance Company of America sold Southdale Office Complex on November 03, 1989 with a stated sales discount of \$5,300,000 to reflect the presence of ACM within the three buildings. An evaluation of that discount, its reasonableness in light of the remaining asbestos fireproofing in the 6800 Building at the time of sale, and a calculation of the net sales discount due to the asbestos fireproofing are contained within this report.

TABLE 2

Southdale Office Complex
6800 Bldg
Edina, MN
(W.R. Grace)

TABLE 2
Summary of Asbestos Fireproofing Removal and Replacement
Net Costs Prior to Building Sale

PROJECT INFORMATION	7th - Phases 1 & 2 05/88 - 11/88 Environet I.E.A.
Asbestos Abatement Dates	19,918
Asbestos Abatement Contractor	
Asbestos Abatement Consultant	
Project Floor Area (square feet)	
GROSS ABATEMENT PROJECT COSTS (1)	
Asbestos Abatement Contractor	\$453,041.38
Asbestos Abatement Consultant	100,739.54
Electrician	1,697.65
Total Gross Abatement Project Costs	\$555,478.57
Total Cost per square foot of floor area	\$27.89
DEDUCTIONS FOR NON FIREPROOFING	
PROJECT COSTS (NON FP)	
Vinyl Asbestos Floor Tile (VAT) Removal (2)	\$0.00
Thermal System Insulation (TSI) Removal (3)	12,586.00
Miscellaneous Project Cost Deductions (4)	0.00
Total Project Deductions	\$12,586.00
CONTAMINATED BUILDING	
COMPONENT REPLACEMENT COSTS (5)	
Ceilings	\$0.00
Light Fixtures	0.00
Ductwork	0.00
Total Contaminated Bldg. Component Replacement Cost	\$0.00
TOTAL NET PROJECT COSTS	
Total Net Project Costs	\$542,892.57
Total Net Project Costs Per Square Foot of Floor Area	\$27.26

Notes:

- (1) Refer to Table 3 for detailed listing of Gross Abatement Project Costs.
 (2) No VAT removal required by project documents, therefore deduct = \$0.
 (3) Refer to Appendix D for Summary of TSI Project Costs Deductions.
 (4) There were no Miscellaneous Project Cost Deductions, therefore deduct = \$0.
 (5) Refer to Table 7 for costs not included in this report.

TABLE 3

Southdale Office Complex
6800 Bldg
Edina, MN
(W.R. Grace)

TABLE 3
Detailed Costs for Completed Asbestos Fireproofing Removal and Replacement Projects Prior to Building Sale

Progressing removal and replacement of asbestos containing materials in building						
Floor No.	Vendor	Invoice No.	Invoice Date	Total Invoice	Non FP	Description
7th	Environet	3366	5/13/88	\$170,000.00		50% progress payment for asbestos abatement. (Contract Amount = \$340,000)
7th	Environet	3378	5/31/88	131,089.38		Removal & disposal of asbestos containing materials (includes C.O.#1 = \$1,668.38 for cleaning debris in penthouse & roof area).
7th	Environet			40,000.00		Retainage.
7th	Environet	C.O. #2	5/2/88	0.00		C.O.#2 = \$0.00 for an additional 6 days to remove overspray from ducts & piping within shafts unknown to the owner.
7th	Environet	C.O. #3	5/2/88	0.00		C.O.#3 = \$0.00 for an additional 16 hours because of the wind conditions and building air not on.
7th	Environet	C.O. #4	5/19/88	992.00		C.O.#4 = \$992.00 for ACM bulk removal from the roof & \$565.00 for glovebag removal of fireproofing over south door.
7th	Environet	C.O. #5	5/19/88	3,731.00		C.O.#5 = \$3,731.00 for southside enclosure & decon chamber to lower ducts & build air return for air conditioning.
7th	Environet	C.O. #6	5/19/88	1,194.00		C.O.#6 = \$1,194.00 for covering of A/C copper pipe with plywood & \$114.00 for repairs to plywood covering after trouble with A/C refrigerant lines underneath plywood enclosure.
7th	Environet	5737	8/1/88	96,035.00		Removal and disposal of asbestos containing materials. (Contract Amount = \$106,035).
7th	Environet			10,000.00		Retainage.
		Contractor Subtotal =		\$453,041.38		Total Contract Value = \$340,000.00 + \$106,035.00 + \$7,585.38 (CO's) = \$453,620.38
7th	I.E.A.	11023	5/25/88	\$10,000.00		Inspection, assessment, sampling and analysis On-site monitoring, project development, consultation, lab analysis for April, May & June 1988. Abatement air monitoring
7th	I.E.A.	11400	8/31/88	67,155.02		
	I.E.A.	12304	11/30/88	23,584.52		
		Consultant Subtotal =		\$100,739.54		
7th	Seco	0020802	6/3/88	\$1,697.65		Remove electrical devices for asbestos removal.
		Electrician Subtotal =		\$1,697.65		
		Gross Abatement Project Costs =		\$555,478.57		

TABLE 4

Southdale Office Complex
6800 Bldg
Edina, MN
(W.R. Grace)

TABLE 4
Detailed Costs for Completed Asbestos Fireproofing In-Place Management Projects Prior to Building Sale

Floor No.	Vendor	Invoice No.	Invoice Date	Total Invoice	Non FP	Description
4th	Environet	5712	7/12/88	\$1,163.68		Removal & disposal of asbestos containing materials from rooms 445 and 448.
4th	Environet	5713	7/13/88	1,070.63		Removal & disposal of asbestos containing materials from the NW corner.
4th	Environet	5746	8/8/88	13,592.66		Removal & disposal of asbestos containing materials from the NW corner.
		Dust Control Subtotal =		\$15,826.97		
	Twin City Testing	4410-88-1151	12/30/87	\$871.84 *		*Asbestos testing: Total invoice \$7,026.00 for 137 bulk samples. Pro-rated cost for the 6800 building fireproofing samples = (17 / 137) x \$7,026.00 = \$871.84 (rounded).
		Building Survey Total =		\$871.84		
	Environet	3356	4/29/88	\$2,688.00		Cleanup from roof leak.
		Cleanup Subtotal =		\$2,688.00		
	I.E.A.	11304	8/16/88	\$10,000.00		Risk assessment completion.
	I.E.A.	13117	4/21/89	2,500.00		Professional services - Operations and Maintenance Plan.
	I.E.A.	13342	6/16/89	1,875.00		1 day O & M training.
		Subtotal		\$14,375.00		
	BCM Engineers	4-3162	4/7/89	\$250.00		Asbestos awareness video.
		O&M Total =		\$14,625.00		
Total In-Place Management Projects Costs =				\$34,011.81		

TABLE 6

Southdale Office Complex
 6800 Building
 Edina, MN
 (W.R. Grace)

TABLE 5

ANALYSIS OF THE SALES DISCOUNT DUE TO ASBESTOS IN THE BUILDING

The asbestos containing fireproofing was removed from portions of the seventh floor of the 6800 Building, as well as from the east and south HVAC shafts, from May through November of 1988. The removal was performed by Environet and monitored by the Institute for Environmental Assessment (IEA) at a total project cost of \$555,478.57, or \$27.89 per square foot of building area which contained the asbestos fireproofing.

The Purchase Agreement, dated November 3, 1989 (see Appendix E), states in paragraph 2.3 that the total purchase price "was substantially discounted due to the presence of asbestos and underground storage tanks on the Property and due to other items of repair and improvement". In paragraph 8.3 of the Agreement, the Purchaser acknowledges receipt of a copy of an asbestos survey report prepared by the Institute for Environmental Assessment dated May, 1988, and as revised August 23, 1989.

On November 3, 1989 a side letter to the Purchase Agreement (see Appendix F) further defined the amount of the Purchase Price reductions, as follows:

<u>Item</u>	<u>Price Reduction</u>
Asbestos	\$5,300,000
Underground Storage Tanks	90,000
Roof Repair	30,000
Drainage Improvements	70,000
Life Safety System Improvements	130,000

In an effort to determine the amount of the \$5,300,000 asbestos discount that was attributable to the asbestos fireproofing in the 6800 Building, Halliwell Engineering Associates examined the May 1988 survey report and August 23, 1989 revision, prepared by the Institute for Environmental Assessment (IES).

The May 1988 Inspection Profile Report was completed prior to the 7th floor abatement project. As a part of the survey, numerous samples of floor tile, ceiling tiles, mechanical equipment insulation, pipe insulation and pipe fitting insulation were taken and analyzed for all 4 buildings.

Southdale Office Complex
 6800 Building
 Edina, MN
 (W.R. Grace)

A total of 39 samples were taken from the 6800 Building, 16 from the 6750 Building, 15 from the 6700 Building and 31 from the 6600 Building. In the summary of the report (see Appendix G) quantities of asbestos-containing materials and estimated removal and replacement costs were reported, as follows:

<u>6800 Building</u>	<u>Removal and Replacement</u>
Sprayed-on fireproofing	\$5,040,000
Thermal System Insulation (TSI)	
200 LF pipe insulation	3,400
170 pipe elbows	5,100
382 sq. ft. equipment insulation	<u>3,800</u>
	12,300
6800 Building Total =	\$5,052,300
 <u>6750 Building</u>	 <u>Removal and Replacement</u>
2,390 sq. ft. ceiling tile	9,300
252 sq. ft. textured ceiling	3,200
60 pipe elbows	<u>1,900</u>
6750 Building Total =	\$14,400
 <u>6700 Building</u>	 <u>Removal and Replacement</u>
4,423 sq. ft. ceiling tile	17,000
4 pipe elbows	<u>114</u>
6700 Building Total =	\$17,114
 <u>6600 Building</u>	 <u>Removal and Replacement</u>
6600 Building Total =	\$ 0
Total All 4 Buildings =	<u>\$5,083,814</u>

The August 23, 1989 IEA report (see Appendix H) stated that the cost for the asbestos removal and reinsulation in the 6800 Building, as stated in their May 20, 1988 report, of approximately \$5,000,000 is still accurate. The report also stated that those abatement cost estimates that the Institute provided did not include consulting services. The report updated the earlier cost estimates for asbestos removal and reinsulation, as follows:

Southdale Office Complex
 6800 Building
 Edina, MN
 (W.R. Grace)

<u>6800 Building</u>	<u>Cost Estimate</u>
Sprayed-on fireproofing (remainder of 7th floor)	\$120,000
Sprayed-on fireproofing (1st-6th floors)	3,600,000
Sprayed-on fireproofing (basement)	<u>650,000</u>
6800 Building Total =	\$4,370,000
<u>6750 Building Total</u> =	38,000
<u>6700 Building Total</u> =	<u>38,000</u>
Sub-total for 4 Buildings =	\$4,446,000
A/E and monitoring costs =	343,000 (7.7%)
Contingency 10% =	<u>478,000</u>
TOTAL =	\$5,267,000

The amount of the estimated \$5,267,000 that is attributable to the asbestos fireproofing in the 6800 Building is determined as follows:

\$4,370,000	(6800 Building Total)
- <u>12,300</u>	(TSI cost estimate in 5/88 report)
4,357,700	Sub-total
+ <u>335,543</u>	(7.7% A/E and monitoring costs)
\$4,693,243	Sub-total
469,324	Contingency 10% attributable to asbestos fireproofing in the 6800 Building
<u>\$5,162,567</u>	Net sales discount attributable to asbestos fireproofing in the 6800 Building

With 189,749 square feet of floor area remaining to be abated at the time of the sale, the \$5,162,567 attributable discount is equivalent to \$27.21 per square foot of floor area. Since the only fireproofing removal project completed prior to the sale was completed at a net cost of \$27.26 per square foot of floor area, the 1989 discount compares almost identically to the actual net costs incurred in 1988.

Following the sale of the building, the new Owners proceeded with the asbestos fireproofing removal projects, and as of 12/31/95 had already spent \$4,558,720 (see Appendix I for General Ledger).

Southdale Office Complex
6800 Building
Edina, MN
(W.R. Grace)

TABLE 6
INTEREST CHARGES

An additional element of costs is interest charges. However, this report does not calculate that aspect of The Prudential Insurance Company of America's damages.

TABLE 6

Southdale Office Complex
6800 Building
Edina, MN
(W.R. Grace)

TABLE 7

**MISCELLANEOUS RELATED COSTS
NOT INCLUDED IN THIS REPORT**

1. The Prudential Insurance Company of America's internal asbestos management costs.
2. Costs for initial asbestos survey.
3. Electrical or water consumption costs incurred during the asbestos removal projects.
4. Costs for the relocation of furniture, equipment, and employees to other areas of the building during the asbestos abatement project.
5. Elevator after hours operational costs for asbestos removal projects.
6. Costs for the replacement of asbestos contaminated building components (plaster lath ceiling and column enclosures).

In addition to the above costs that were not included, this report did not consider or calculate lost rental income due to the asbestos fireproofing in the building.

SECTION III

STATEMENT OF OPINIONS

HALLIWELL

ENGINEERING ASSOCIATES INCORPORATED

STATEMENT OF OPINIONS

SOUTHDAL E OFFICE COMPLEX 6800 BUILDING

In preparing this report, we have formulated certain opinions pertaining to the costs for the management, removal and replacement of the asbestos containing fireproofing. Those opinions relate specifically to costs incurred to date, and any explicit discount of the property, realized at the time of sale due to the presence of the remaining asbestos fireproofing.

For the purposes of the opinions set forth herein, we have:

- (1) collected and reviewed certain information relating to the original design and construction of the building;
- (2) discussed with building management, issues pertaining to the building's construction and operations as well as the management, removal and replacement of the asbestos containing fireproofing;
- (3) inspected and photographed the building on two independent occasions;
- (4) collected and reviewed cost information pertaining to the management, removal and replacement of the asbestos containing fireproofing;
- (5) collected and reviewed project information pertaining to the management, removal and replacement of the asbestos containing fireproofing;
- (6) evaluated past costs pertaining to the asbestos abatement contractors, asbestos consultants and miscellaneous costs related to the management, removal and replacement of asbestos containing materials on a project by project basis;
- (7) determined gross costs for the asbestos abatement;
- (8) reviewed project and cost information relating to the abatement of other (non-fireproofing) asbestos containing materials and miscellaneous costs not directly related to the asbestos fireproofing;
- (9) developed cost deductions for each type of non-fireproofing ACM that was abated;
- (10) determined the net project costs directly related to the abatement of the asbestos fireproofing;

865 Waterman Avenue, East Providence Rhode Island 02914-1340 (401) 438-5020 (401) 434-1909 (Fax)

EAST PROVIDENCE, RI

SAN FRANCISCO, CA

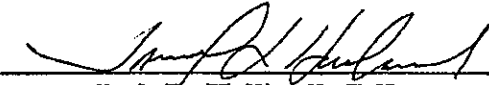
ORLANDO, FL

- (11) determined the abatement project areas and calculated the net costs per square foot for the abatement of the asbestos fireproofing;
- (12) calculated the net individual project costs, the net individual project costs per square foot, and the net total project costs per square foot and compared them to the project size, the amount of asbestos fireproofing being abated, the scope of the work, the level of difficulty, the method of contractor selection, the location of the project and the timeframe in which the work occurred;
- (13) compared the net costs for the abatement of the asbestos containing fireproofing with those of certain other comparable projects;
- (14) reviewed certain documents pertaining to the sale of the building, that identify an agreed upon sales price discount due to the presence of asbestos containing materials remaining in the building at the time of the sale;
- (15) analyzed the sales discount for all identified asbestos containing materials remaining in the building at the time of the sale, and determined the amount of the net sales discount attributable to the asbestos containing fireproofing;
- (16) evaluated the net sales discount for the asbestos containing fireproofing, based upon past costs in the building for asbestos fireproofing abatement, and subsequent costs incurred by the new owner for this work;
- (17) performed such other analyses as we have deemed appropriate.

Based upon and subject to the foregoing, we are of the opinion that the asbestos abatement actions taken by The Prudential Insurance Company of America, in the Southdale Office Complex, 6800 Building, were both reasonable and appropriate; and

Based upon and subject to the foregoing, we are of the opinion on the date hereof, that the total net project costs as calculated in this report, were incurred due to the past abatement of asbestos containing fireproofing in this building, and that those costs are both fair and reasonable; and

Based upon and subject to the foregoing, we are of the opinion on the date hereof that the net sales discount as calculated in this report due to the presence of the remaining asbestos containing fireproofing in the building is both fair and reasonable.



Jack L. Halliwell, P.E.
President
Halliwell Engineering Associates, Inc.

July, 1996

SECTION III

APPENDIX A

APPENDIX A

PART A: ASBESTOS ABATEMENT PROJECT INFORMATION

**PART B: BUILDING INSPECTIONS CONDUCTED BY
HALLIWELL ENGINEERING ASSOCIATES**

**PART C: LOCATION AND DETAILS OF INFORMATION
CONSIDERED IN THE DEVELOPMENT OF THIS
REPORT**

PART A: ASBESTOS ABATEMENT PROJECT INFORMATION

1. Total floor area abated by Prudential: 19,918 sq. ft.
2. Floors abated by Prudential: Approximately 75% of the 7th floor and the east and south perimeter HVAC mechanical shafts (1st through 7th floors)
3. Dates of Prudential's abatement: 4/88 to 8/88
4. Floor area abated after the sale: 189,749 sq. ft.
5. Floors abated after the sale: 8: garage, 1st through 6th floors and remainder of 7th floor
6. Floors with asbestos fireproofing remaining as of July, 1996: All floors abated
7. Total floor area with fireproofing remaining as of July, 1996: All floors have been abated. Small inaccessible amounts may remain throughout the structure.
8. Asbestos abatement scope of work (prior to sale):
 - a. Fireproofing locations: 7th floor: beams and columns with over-spray on bar joists and deck. East and south HVAC shafts; columns with over-spray on walls and ducts.
 - b. Fireproofing surface area to floor area ratio: $14,328.32 \div 19,910 = 0.72$
 - c. Location of inaccessible fireproofing left in place: All floors have been abated. Small inaccessible amounts may remain throughout the structure.
 - d. Base building components:
 - HVAC duct mains: On the 7th floor south wing, ducts removed and replaced by mechanical contractor in containment prior to abatement.
 - Duct insulation: Majority of existing supply ducts uninsulated.
 - Sprinklers: Left in place during abatement.
 - Electrical main feeds: Left in place during abatement.
 - Column enclosures: Column enclosures were demolished; columns abated and resprayed.

e. Core Area:

- Telephone/electrical closet: Not sprayed with fireproofing
- Bathrooms: Bathrooms were not abated under this project, but did contain spray-applied fireproofing
- Stairwells: Not sprayed with fireproofing

f. Other ACM:

- TSI: 600 linear feet of asbestos-containing pipe insulation was removed from the HVAC shafts, and 15 linear feet and 13 fittings were removed from piping on the 7th floor

g. Special Conditions:

7th Floor

- A plaster sub-ceiling existed just below the bottom chords of the structural steel. Ductwork ran below the sub-ceiling. During the HVAC change-over to VAV, large diameter chiller piping from the roof penetrated the plaster sub-ceiling in numerous locations, and structural modifications to the roof required removal and abatement of both the plaster sub-ceiling and the fireproofing on the 7th floor areas.
- The plaster wire lath ceiling was saturated with amended water and cut from the supports and the metal lath was lowered to the floor and material was removed from the metal lath and bagged.
- The metal lath and channels were cut, placed into barrels and disposed of as contaminated waste.
- A plaster material over-sprayed onto the fireproofing also had to be scraped and abated.
- Closely spaced steel bar joints were covered with asbestos fireproofing over-spray.
- All ductwork and VAV boxes had to be draped, cleaned, stored and reinstalled following abatement.
- Substrate was pressure washed.
- Mechanical contractor removed and replaced ductwork in containment in the south wing where the fireproofing was not removed, with personal protective equipment.

NOTE: As reported in the consultant's final report, a plaster material was on the spray-applied fireproofing. It can be assumed that this hard plaster was over-sprayed onto the fireproofing when the plaster lath ceiling was installed. This material may also explain why in the early survey reports, there were false negative bulk sampling results of the asbestos spray-applied fireproofing. The hard plaster sub ceiling, which was part of the original building construction, located just below the bar joists but above the hung ceiling, was removed to access the fireproofing. (Renovation-driven)

East and South HVAC Shafts

- Decontamination units were constructed at base of each shaft
- Shafts were sealed and placed under negative pressure
- Three chairlifts were installed to access full height of shafts
- Fireproofing scraped from columns, walls and ducts
- 600 linear feet of asbestos-containing TSI removed
- Entire shafts were pressure washed

PART B: BUILDING INSPECTIONS CONDUCTED BY HALLIWELL ENGINEERING ASSOCIATES

1. Initial Inspection

Date/Inspectors: 5/9/96: Gary Halliwell, Project Manager and Richard Pellechio, Project Manager

Building contact person: Bob Coatsworth, Building Engineer

Inspection guide: Bob Coatsworth, Building Engineer

Unabated floors inspected: All floors were abated

Abated floors inspected: Garage, 1st, 2nd, 3rd, 6th and 7th

Photographic record: 122 photos

2. Second Inspection

Date/Inspectors: 5/17/96: Jack Halliwell, P.E. and Todd Cormier, P.E.

Building contact: Bob Coatsworth, Building Engineer

Inspection guide: Bob Coatsworth, Building Engineer

Unabated floors inspected: All floors were abated

Abated floors inspected: Garage, 1st, 2nd, 3rd, 5th and 7th

Photographic record: 75 photos

PART C: LOCATION AND DETAILS OF INFORMATION CONSIDERED IN THE DEVELOPMENT OF THIS REPORT

1. Building Information: Located in HEA Box No. SOC-1

Building design drawings: Architectural, Structural and Mechanical

Asbestos surveys: 7/14/86; BCM Converse Inc.
12/9/87; Twin City Testing
5/88; Institute for Environmental Assessment

Asbestos management plan: 3/89; Institute for Environmental Assessment and
6/90; Nova Environmental Services, Inc.

Correspondence: Miscellaneous

Building inspections: 5/9/96; Gary Halliwell, Project Manager, and
Richard Pellechio, Project Manager
5/17/96; Jack Halliwell, P.E. and Todd Cormier, P.E.

Photographs and photo logs: From inspections above

Discussions with building personnel: Bob Coatsworth, Building Engineer

2. Asbestos Abatement Cost Information: Located in HEA Box No. SOC-1

Contractor's bid forms

Bid evaluation

Contract documents

Consultant's invoices

Contractor's applications for payment

Change orders

Correspondence

3. Asbestos Abatement Project Information: Located in HEA Box No. SOC-1

Contract documents

Abatement specifications

Abatement meeting notes

Consultant's final report

Correspondence

Federal and state asbestos regulations

4. Building Sale Information: Located in HEA Box No. SOC-1

Cost estimates

Surveys

Environmental audits

Purchase Agreement

Purchase Agreement side letter

Post-sale General Ledger, 1990-1995

APPENDIX B

APPENDIX B

PROJECT FLOOR AREA/FIREPROOFING AREA CALCULATIONS

SOUTHDALE OFFICE COMPLEX
6800 BUILDING

FIREPROOFED FLOOR AREA CALCULATIONS

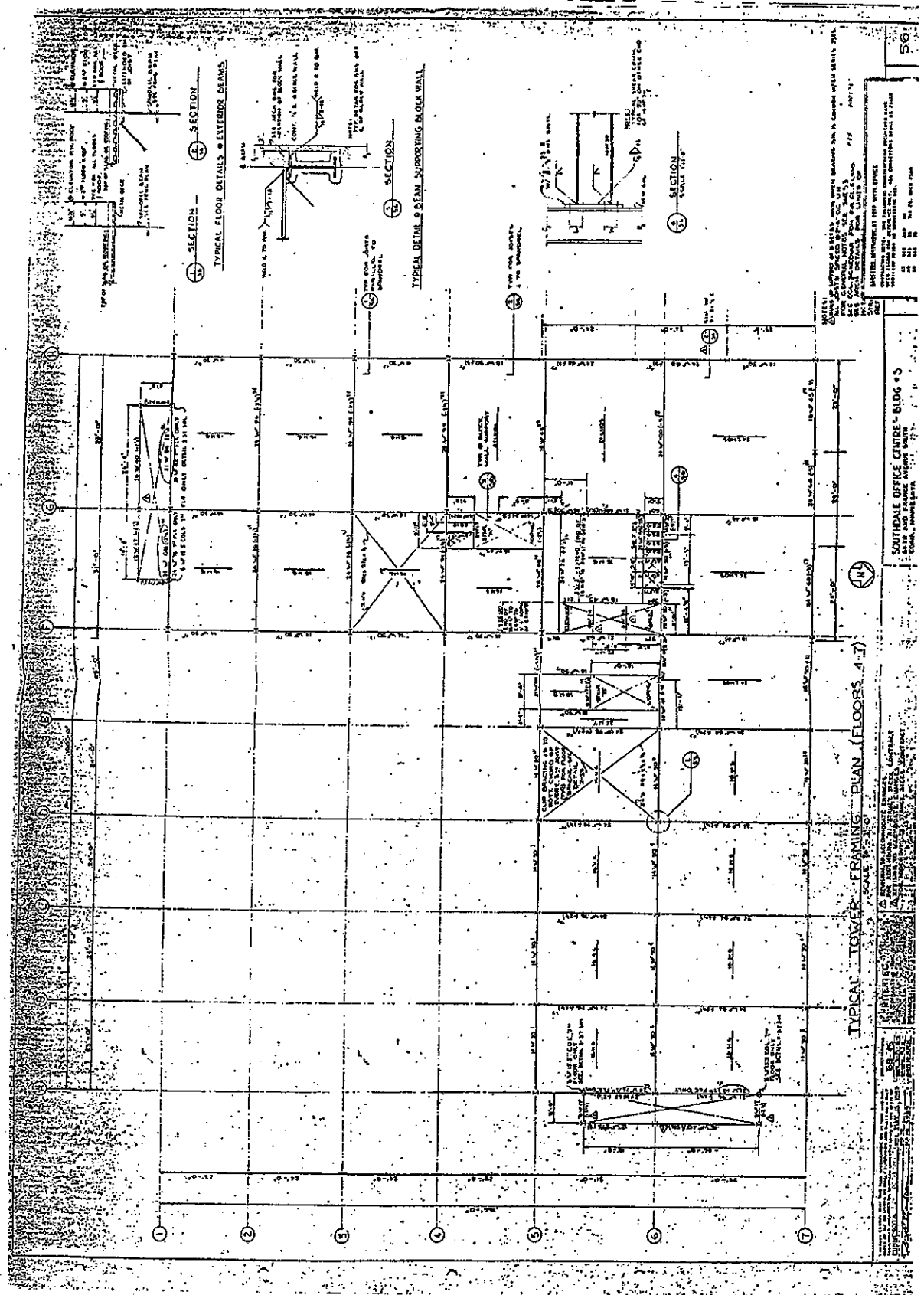
Floor	Gross Area	Non-Fireproofed Floor Areas Interior Stairs	Net Fireproofed Floor Area	
			Total	Abated by Pru
Garage	35,318	272	35,046	0
1st Floor	34,814	545	34,269	0
2nd Floor	36,614	320	36,294	0
3rd Floor	20,230	320	19,910	0
4th Floor	20,230	320	19,910	0
5th Floor	20,230	320	19,910	0
6th Floor	20,230	320	19,910	0
7th Floor	20,230	320	19,910	15,410
East HVAC Shaft	2,254	0	2,254	2,254
South HVAC Shaft	2,254	0	2,254	2,254
TOTALS			209,667	19,918
FIREPROOFED FLOOR AREA REMAINING AT TIME OF SALE				189,749

Typical Floor used for fireproofing ratio: 3rd - 7th

Floor area: 19,910 Sq. Ft.

FIREPROOFING SURFACE AREA CALCULATIONS (Typical Office Floor)

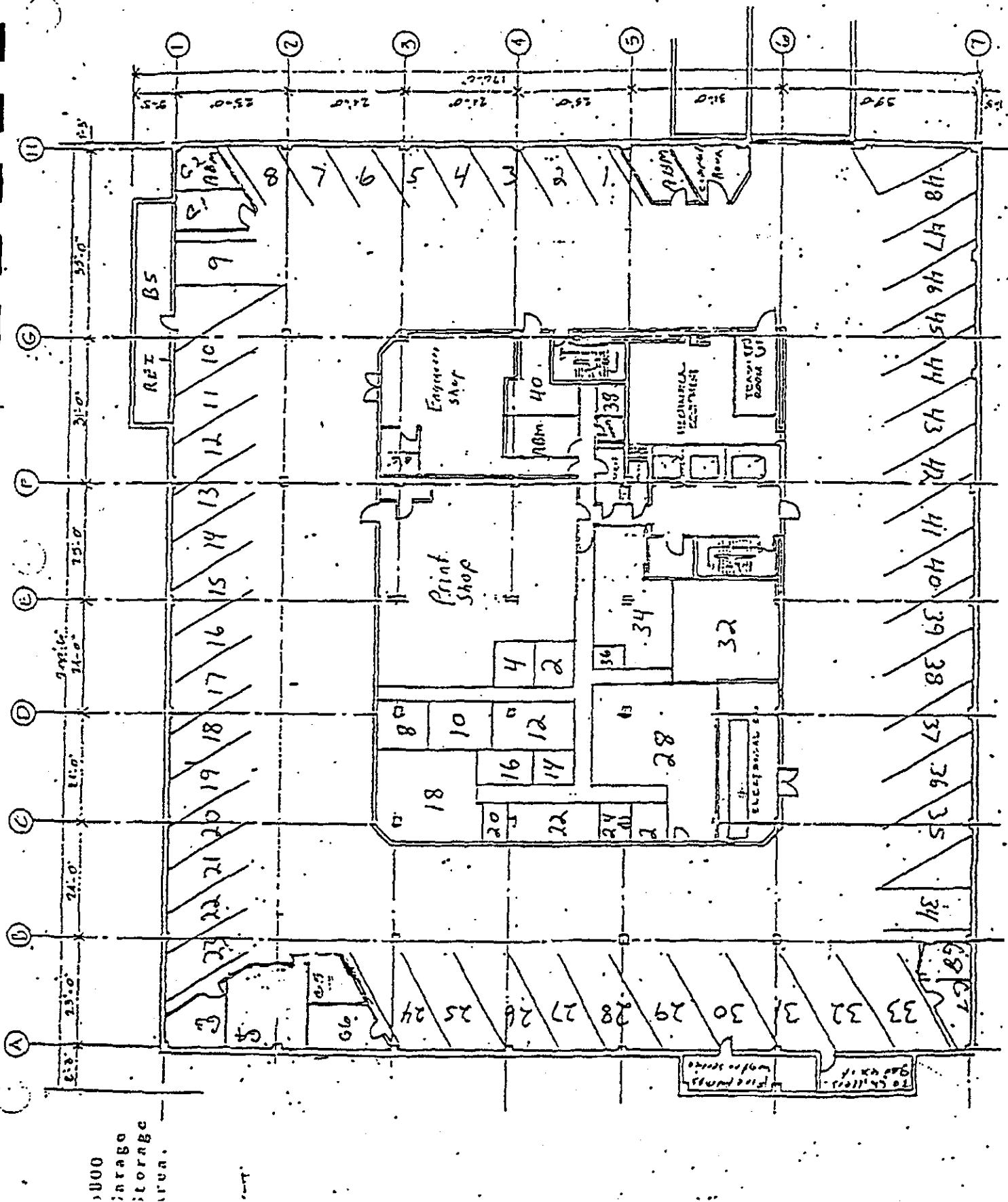
BUILDING: SOUTHDALE-6800 Building Edina, MN (Beams and Columns)									
Fireproofed Floor Area (Typical Floor): 19,910 square feet (sf)									
Typical Floor Location: Typical Floors 4 - 7									
BEAM NUMBER	BEAM SIZE	No. Beams	TOTAL BEAM LENGTH		NET BEAM FIREPROOFED AREA (sq ft)	TOTAL BEAM FIREPROOFED AREA (sq ft)	AVERAGE OVERSPRAY WIDTH (inches)	TOTAL OVERSPRAY AREA [length x width x 2 (sq ft)]	TOTAL BEAM & OVERSPRAY FIREPROOFING AREA (sq ft)
1 - 21	14WF30	21 @	24.00 =	504.00	3.89	1,960.56	0.5	756.00	2,716.56
22 - 29	24WF76	8 @	31.00 =	248.00	6.09	1,510.32	0.5	372.00	1,882.32
30 - 36	24WF94	7 @	39.00 =	273.00	6.16	1,681.68	0.5	409.50	2,091.18
37 - 39	18WF45	3 @	39.00 =	117.00	4.76	556.92	0.5	175.50	732.42
40 - 41	24WF68	2 @	31.00 =	62.00	6.06	375.72	0.5	93.00	468.72
42	21WF96	1 @	39.00 =	39.00	6.00	234.00	0.5	292.50	292.50
43	14WF30	1 @	25.00 =	25.00	3.89	97.25	0.5	37.50	134.75
44	16WF45	1 @	25.00 =	25.00	4.33	108.25	0.5	37.50	145.75
45	14WF34	1 @	11.75 =	11.75	3.91	45.94	0.5	17.63	63.57
46	16WF40	1 @	7.17 =	7.17	4.31	30.90	0.5	10.76	41.66
47	18WF50	1 @	25.00 =	25.00	4.80	120.00	0.5	37.50	157.50
48 - 49	18WF50	2 @	31.00 =	62.00	4.80	297.60	0.5	93.00	390.60
50	21WF62	1 @	31.00 =	31.00	5.42	168.02	0.5	46.50	214.52
51	18WF45	1 @	31.00 =	31.00	4.40	136.40	0.5	46.50	182.90
52	21WF68	1 @	10.00 =	10.00	5.45	54.50	0.5	15.00	69.50
53	18WF50	1 @	11.00 =	11.00	4.80	52.80	0.5	16.50	69.30
54 - 57	24WF68	4 @	24.00 =	96.00	6.06	581.76	0.5	144.00	725.76
58	24WF100	1 @	39.00 =	39.00	6.60	257.40	0.5	58.50	315.90
59	18WF45	1 @	23.00 =	23.00	4.40	101.20	0.5	34.50	135.70
60	21WF112	1 @	22.67 =	22.67	6.50	147.36	0.5	34.01	181.36
61	21WF62	1 @	24.00 =	24.00	5.42	130.08	0.5	36.00	166.08
62	24WF76	1 @	31.00 =	31.00	6.09	188.79	0.5	46.50	235.29
63	21WF55	1 @	23.00 =	23.00	4.99	114.77	0.5	34.50	149.27
64	14WF30	1 @	13.33 =	13.33	3.89	51.85	0.5	20.00	71.85
65	14WF30	1 @	5.43 =	5.43	3.89	21.12	0.5	8.15	29.27
66	18WF50	1 @	18.50 =	18.50	4.80	88.80	0.5	27.75	116.55
67 - 69	8WF17	3 @	5.00 =	15.00	2.43	36.45	0.5	22.50	58.95
70 - 73	8B10	4 @	5.00 =	20.00	2.23	44.60	0.5	30.00	74.60
74	8WF17	1 @	9.67 =	9.67	2.43	23.50	0.5	14.51	38.00
Beam and Overspray Totals					1,522.52	9,218.54		2,433.76	11,952.32
(1) 6" is the minimum fireproofing overspray amount observed in most buildings.									
AVERAGE COLUMN SIZE					AVG. COLUMN FIREPROOFED AREA (sq ft)	COLUMN LENGTH linear feet (ft)	TOTAL FIREPROOFING SURFACE AREA (Typical Floor)		
14WF61					5.50	12.00	NUMBER OF COLUMNS	TOTAL COLUMN FIREPROOFED AREA (sq ft)	
COLUMN TOTALS					36	36		2,376.00	
								14,328.32	
FIREPROOFING SURFACE AREA / FLOOR AREA RATIO (Typical Floor) (14,328.32 / 19,910) =									
0.72									

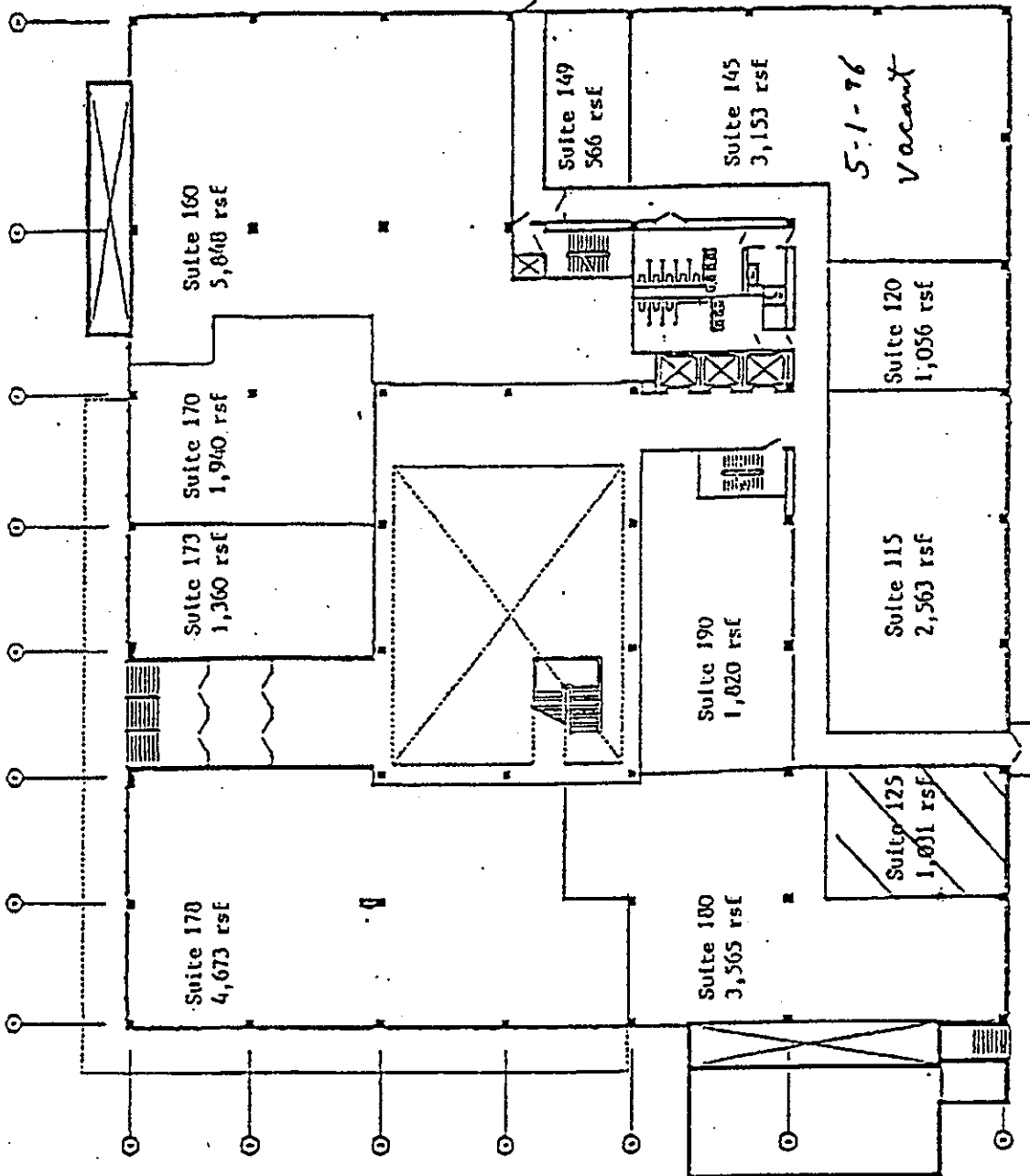


APPENDIX C

APPENDIX C


REDUCED BUILDING DRAWINGS





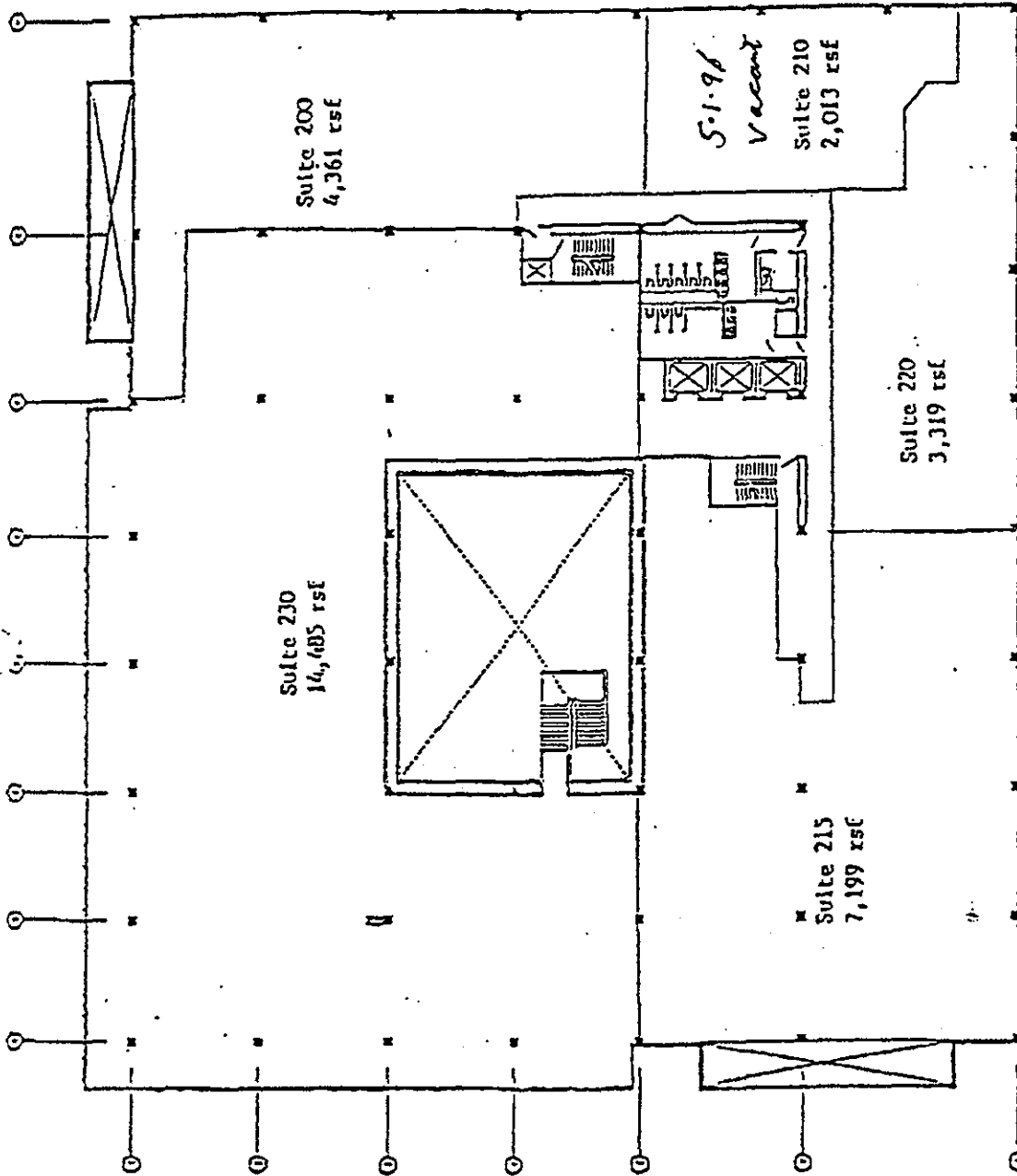
6800 FRANCE AVE. SO.

1st. LEVEL

 **SOUTDALE
OFFICE
CENTRE**



Managed By Richard Ellis Inc.



6800 FRANCE AVE. SO.

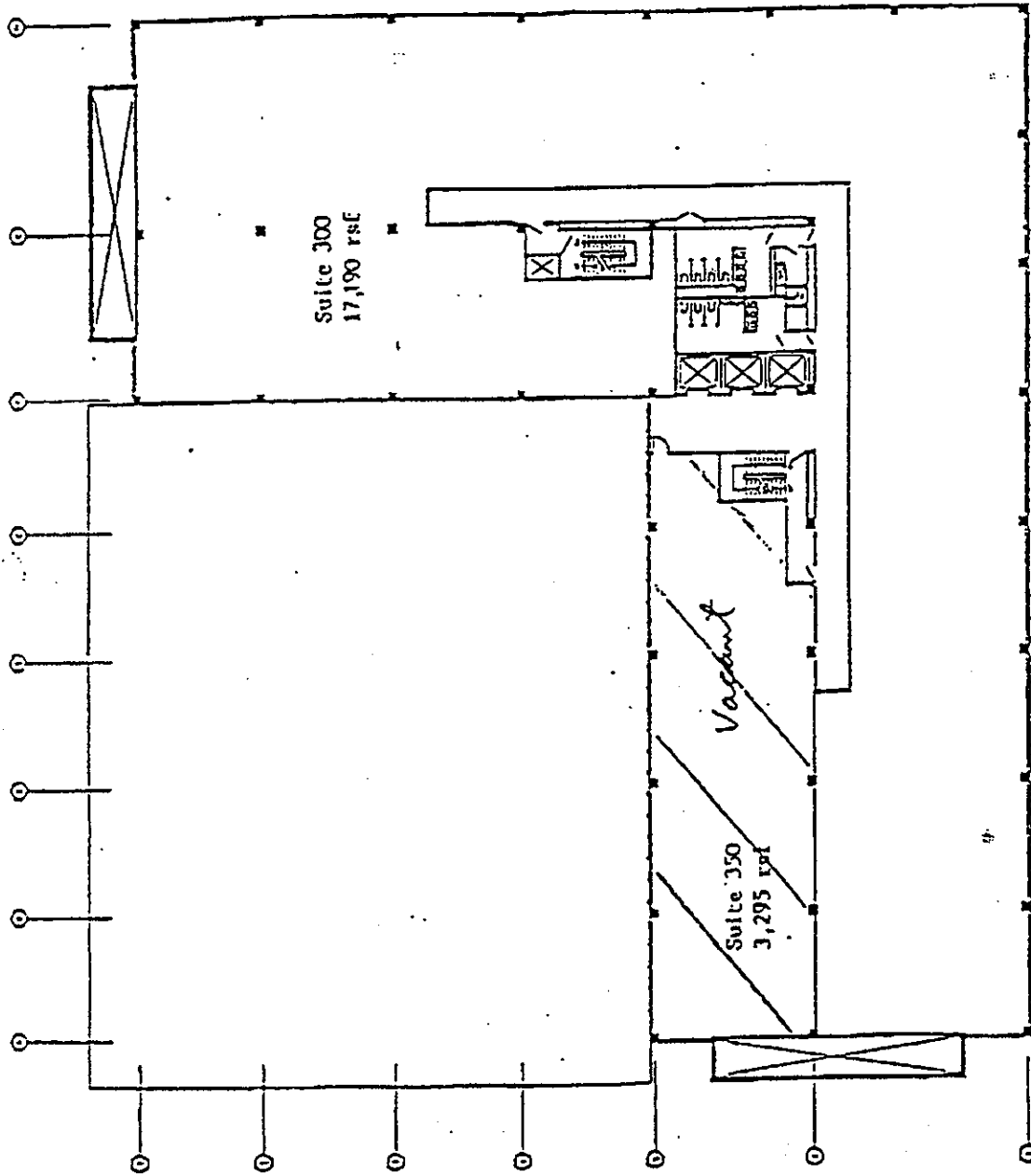
2nd. LEVEL

0 5 10 15 20

THE INCORPORATED FIRM

MANAGED BY RICHARD ELLIS INC.


SOUTIDALE
OFFICE
CENTRE



6800 FRANCE AVE. SO.

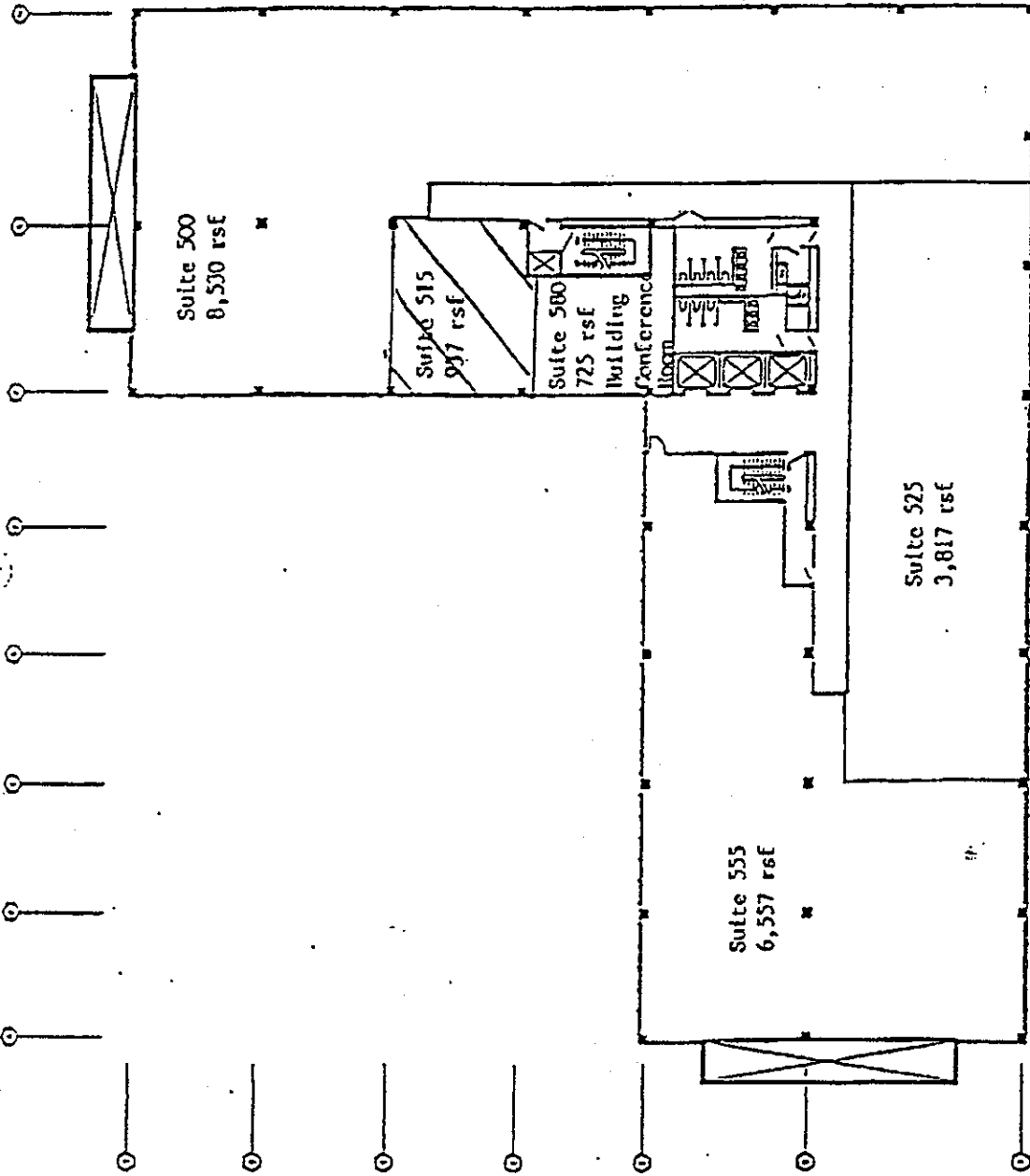
3rd. LEVEL



 SOUTDALE
OFFICE
CENTRE




Managed By Richard Ellis Inc.



6800 FRANCE AVE. SO.

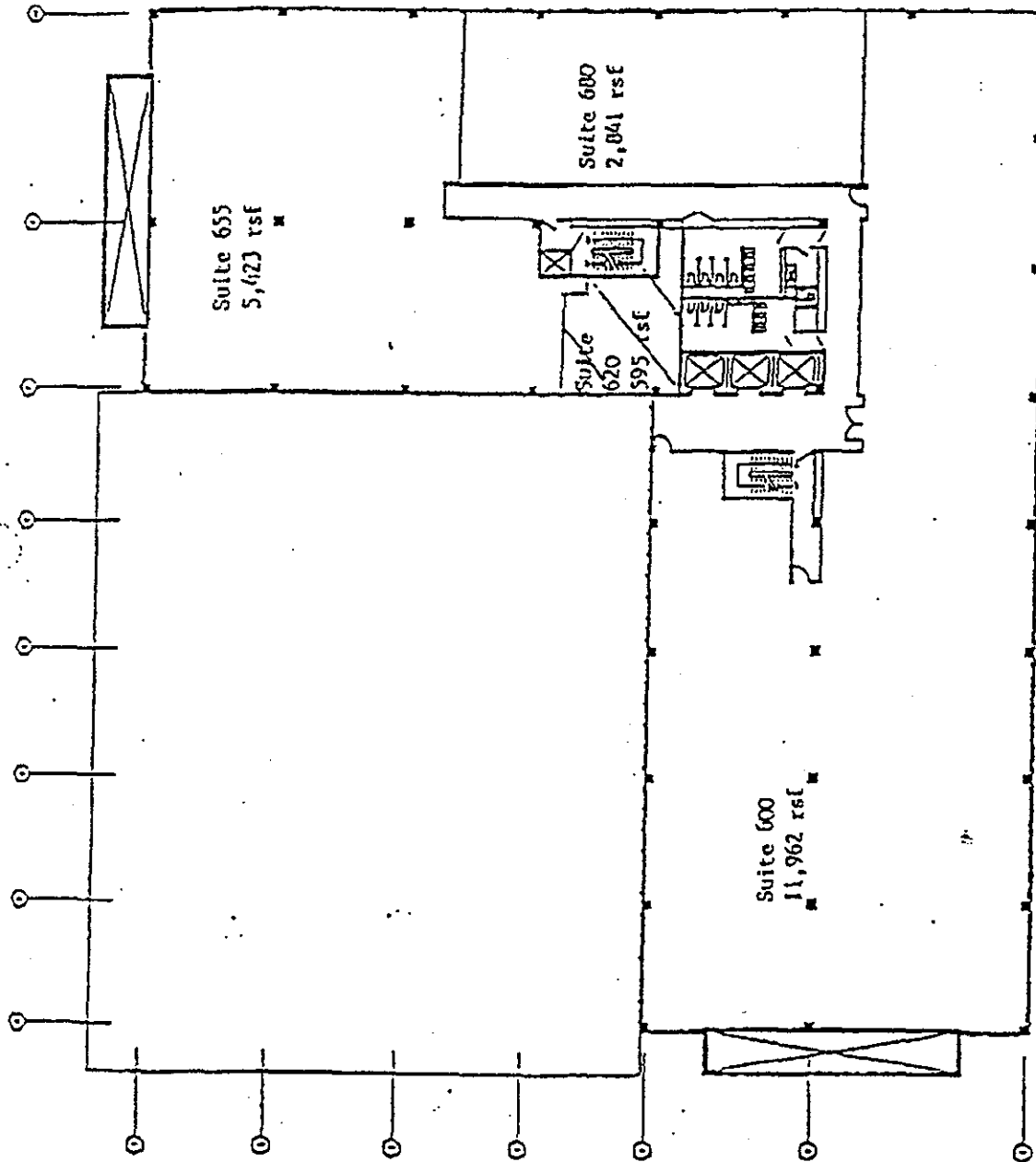
5th. LEVEL



 **SOUTDALE
OFFICE
CENTRE**



Managed By Richard E. & Co. Inc.



6800 FRANCE AVE. SO.

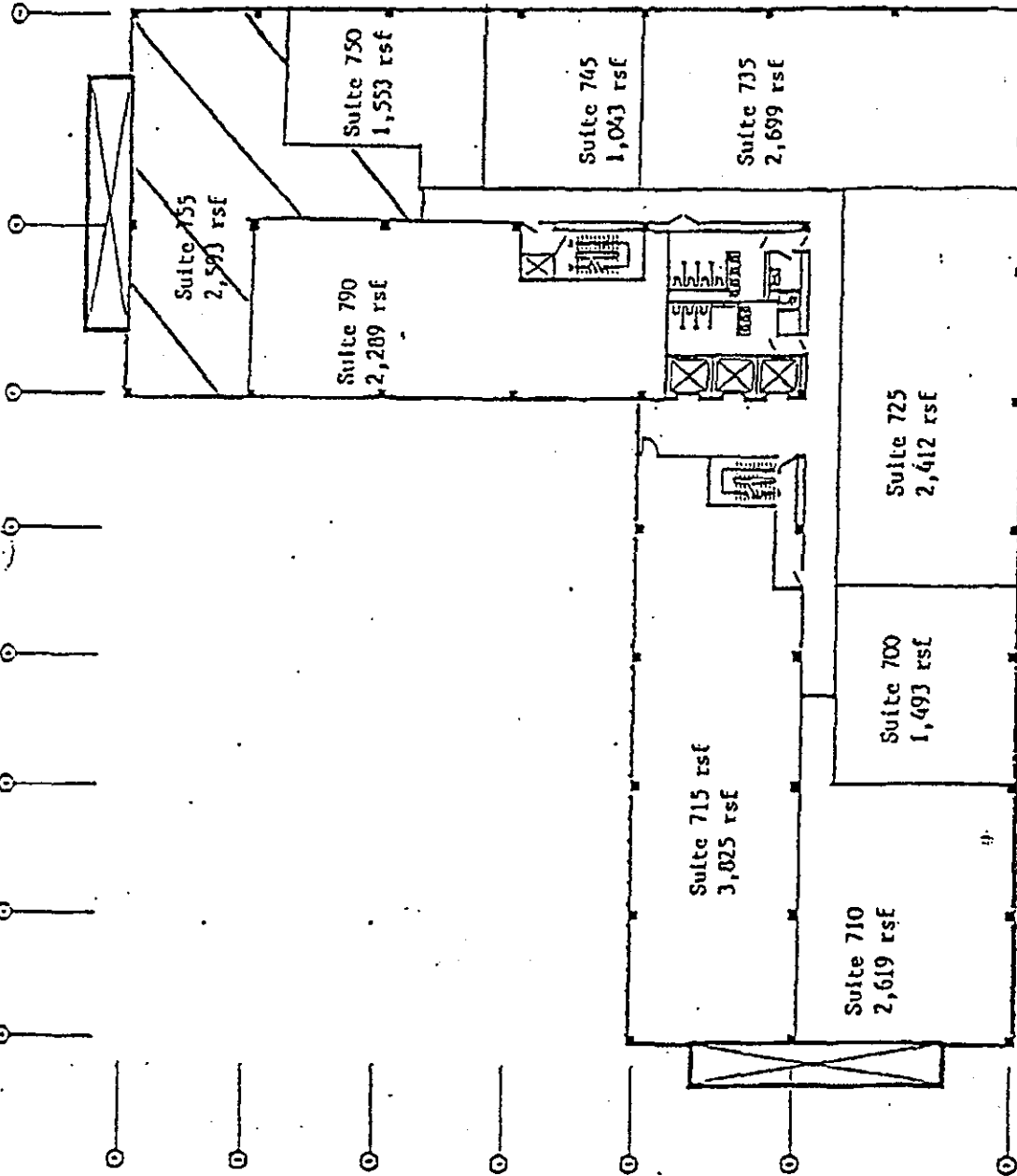
6th. LEVEL



**SOUTDALE
OFFICE
CENTRE**

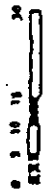



Designed By Richard E. Smith, Inc.



6800 FRANCE AVE. SO.

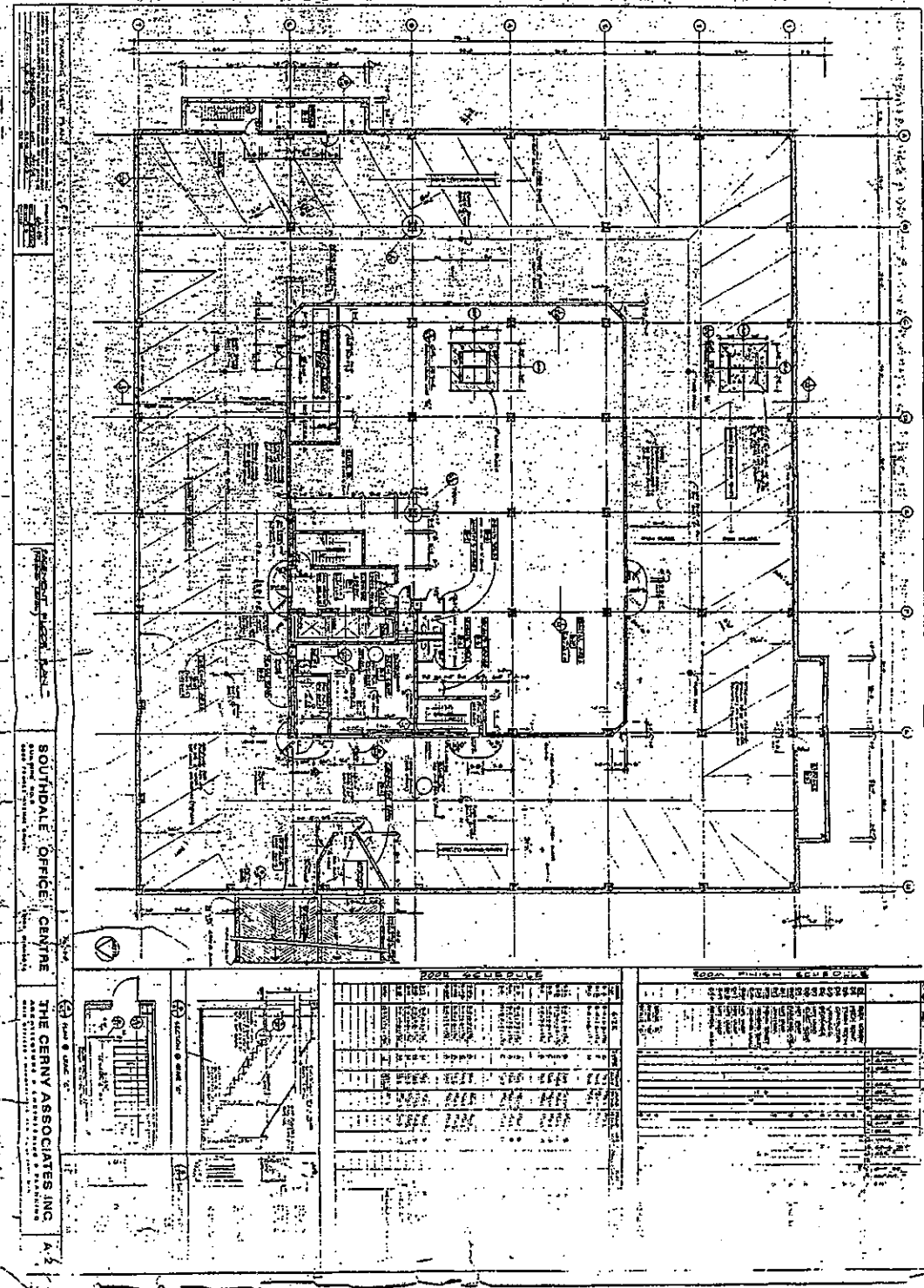
7th. LEVEL

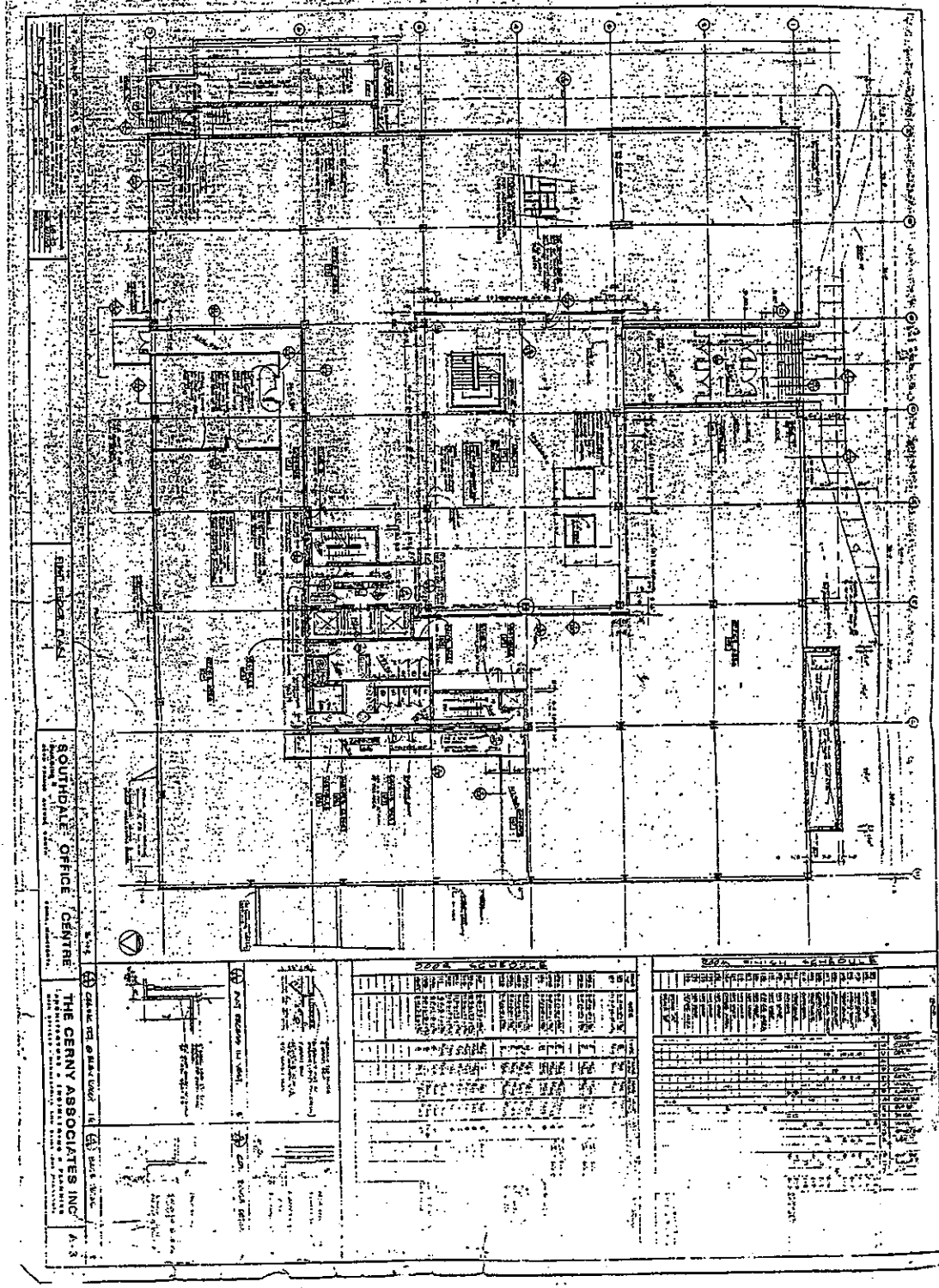


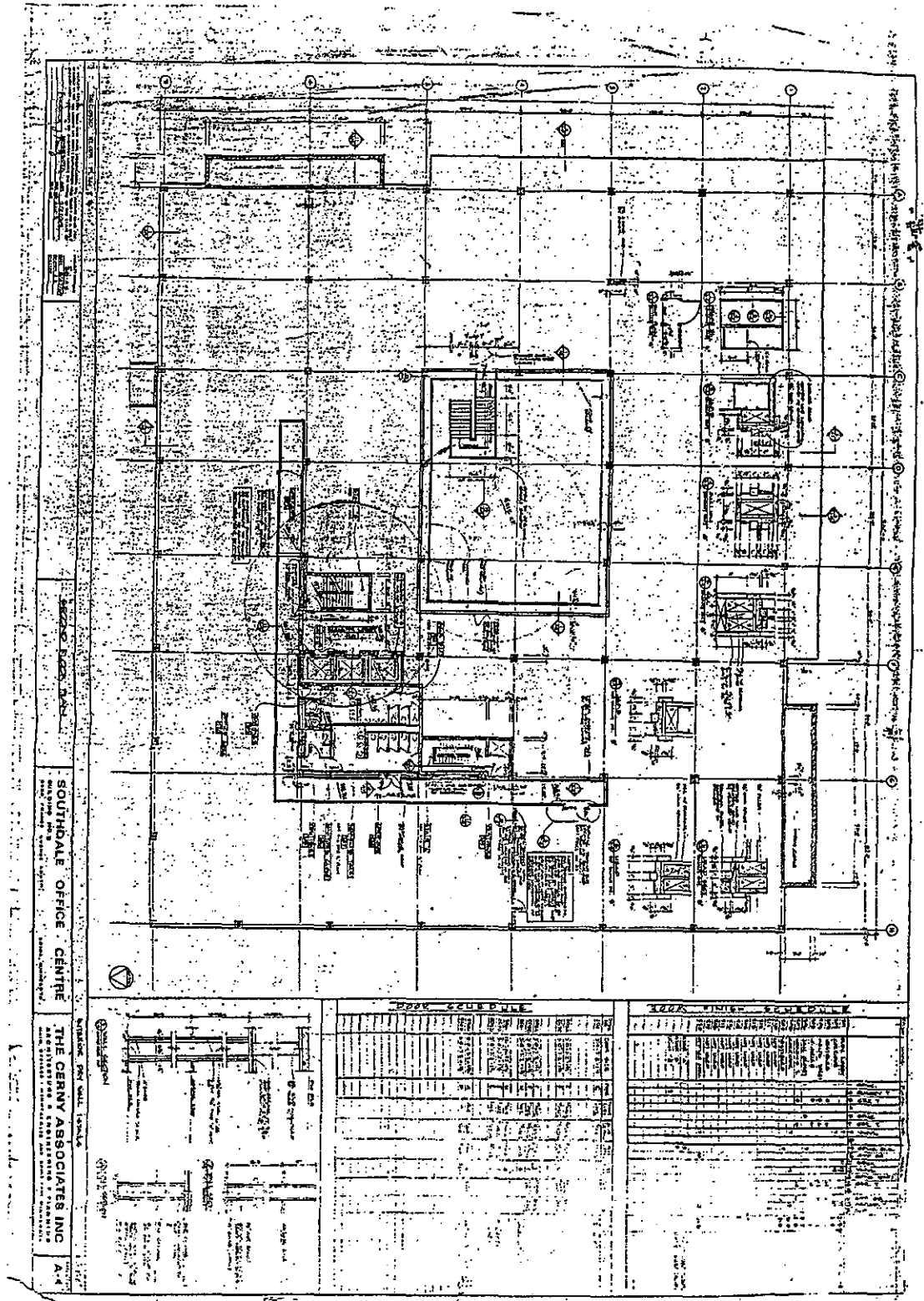
 **SOUTDALE
OFFICE
CENTRE**

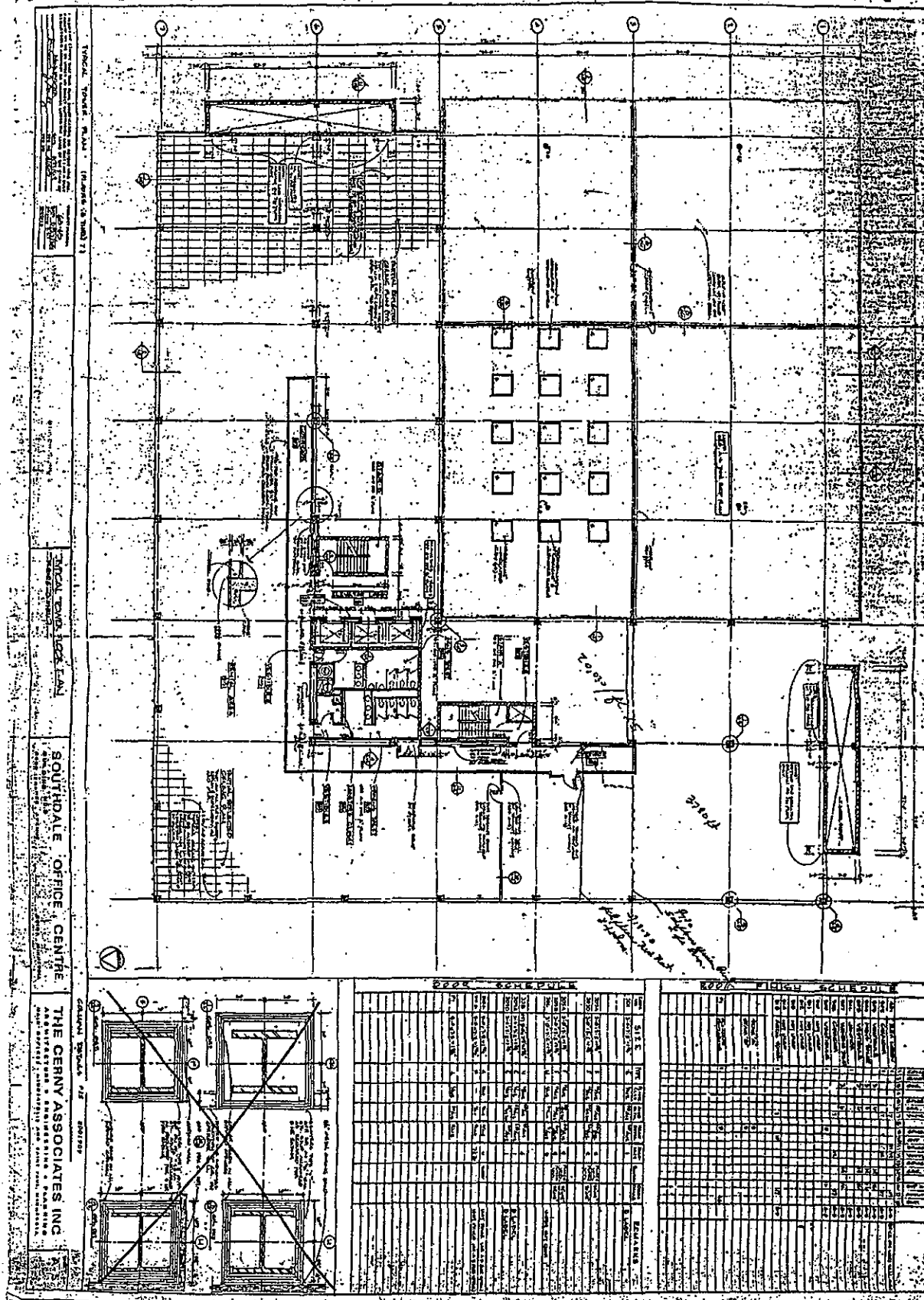


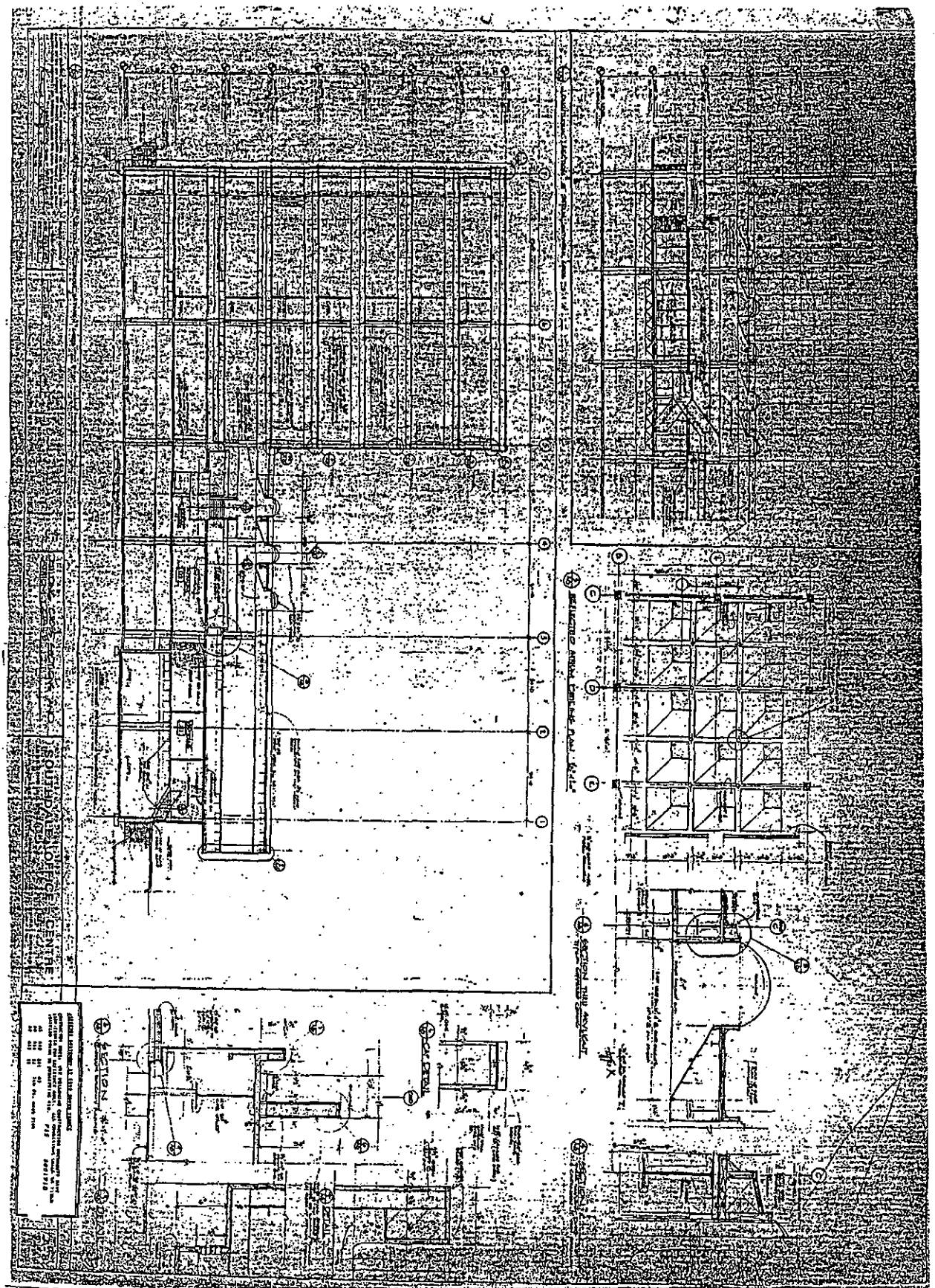
Managed By Richard E&S Inc.

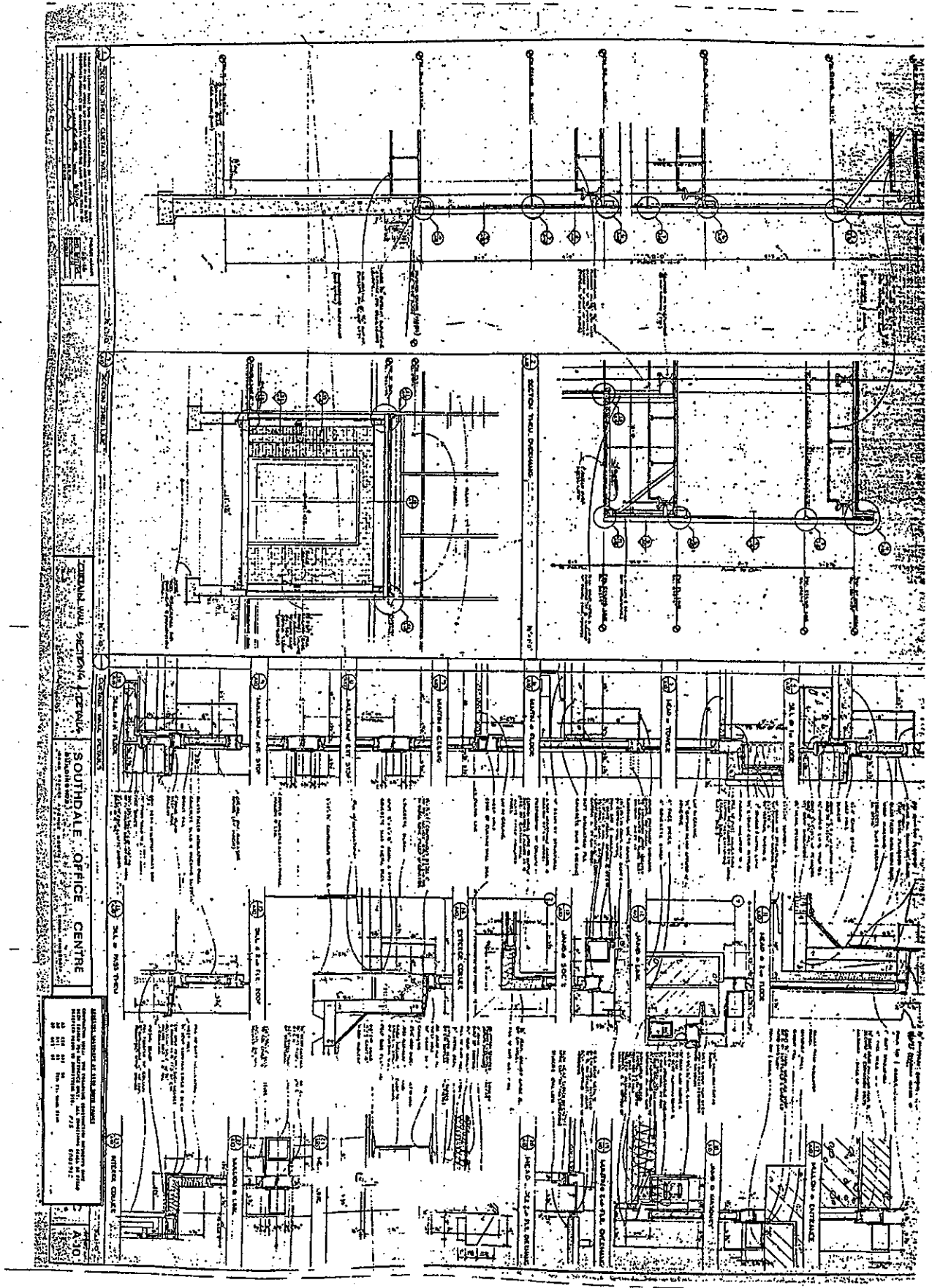


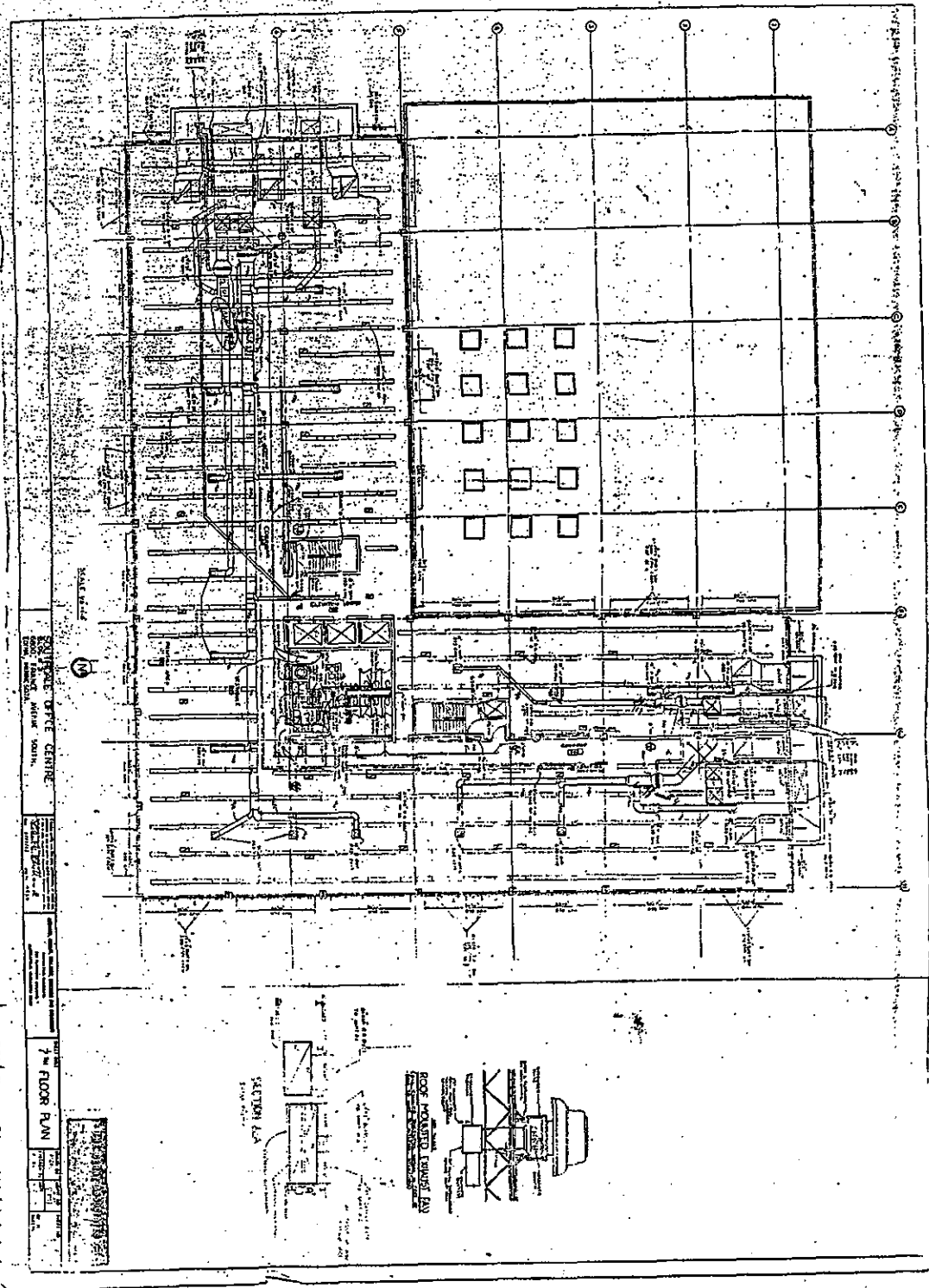












APPENDIX D

APPENDIX D

SUMMARY OF TSI PROJECT COST DEDUCTIONS

Southdale Office Complex
6800 Building
Edina, MN
(W.R. Grace)

APPENDIX D
(Reference Table 2)

SUMMARY OF TSI PROJECT COST DEDUCTIONS

The asbestos containing thermal insulation quantities utilized herein were obtained from the consultant's project final report. Removal costs were estimated by Halliwell Engineering Associates at \$20/LF for straight pipe insulation and \$22/pipe fitting insulation. The resulting TSI cost deductions are outlined below:

Pipe Insulation:

East and South HVAC Shafts: 600 Linear Feet @ \$20/LF = \$ 12,000.00

Suite 795: 15 Linear Feet @ \$20/LF = 300.00

Pipe Fitting Insulation:
(on fiberglass insulated pipes) 13 Elbows @ \$22/EA = 286.00

TOTAL DEDUCT: \$ 12,586.00

APPENDIX E

PURCHASE AGREEMENT EXCERPTS

10/27/89

745 PROPERTY INVESTMENTS

Seller

TO

THE LEXINGTON PROPERTY FUND, L.P.

Purchaser

PURCHASE AGREEMENT

DATED: November 3, 1989

PIS204247

TABLE OF CONTENTS

	<u>Page</u>
1. Definitions.	1
2. Purchase Price	4
3. Closing.	5
4. Title and Survey	8
5. Closing Costs.	10
6. Proration of Income and Expense.	10
7. Fire or Other Casualty; Condemnation	12
8. Sale "As Is"	15
9. Operations After Date of This Agreement; Leases and Other Contracts.	19
10. Assignment	21
11. Access	22
12. Default by Purchaser; Remedies to Seller	23
13. Default by Seller; Remedies to Purchaser	24
14. Notice	24
15. Survival	24
16. Tenant Estoppel Certificates	25
17. Miscellaneous.	26

EXHIBITS

- A Legal Description
- B Leases
- C Hazardous Materials and Chemicals Disclosure and
Access Agreement
- D Estoppel Form
- E Purchaser's Limited Partners and Investors

PURCHASE AGREEMENT

THIS PURCHASE AGREEMENT, made and entered into this 3rd day of November, 1989, between 745 Property Investments, a Massachusetts business trust, c/o The Prudential Insurance Company of America, Prudential Realty Group, 130 E. Randolph, Suite 3300, Chicago, Illinois 60601 ("Seller") and The Lexington Property Fund, L.P., a Delaware limited partnership, 9531 West 78th Street, Suite 300, Eden Prairie, Minnesota 55344 ("Purchaser").

RECITALS

Seller owns a parcel of real estate in Edina, Minnesota, described on Exhibit A hereto (the "Property"), commonly known as the Southdale Office Center.

Subject to and on the terms and provisions of this Agreement, Seller has agreed to sell, and Purchaser has agreed to buy, the Property.

NOW, THEREFORE, the parties hereto agree as follows:

1. Definitions.

As used in this Agreement, the following terms have the following meanings:

Accrued Obligations. Monetary obligations or rights to damages which accrue or arise prior to the Closing Date under any of the agreements listed under the definition of Assumed Obligations, whether liquidated or unliquidated.

Accrued Obligations do not include obligations to perform non-monetary continuing covenants which apply both before and after the Closing Date.

Agreement. This Agreement.

Assumed Obligations. Except for Accrued Obligations, all obligations of the Seller under the following:

- (i) the Leases; and
- (ii) all other agreements included in the Permitted Exceptions.

Closing. The closing of the sale contemplated hereby.

Closing Date. The closing date established pursuant to Section 3.1 or 4.2, as the case may be.

ERISA. Employee Retirement Income Security Act of 1974, as amended.

Free Rent. If no base rent or operating costs (which shall include, without limitation, real estate taxes) are payable under a Lease with respect to any period, Free Rent for that period is the base rent and operating costs which would have been payable during the period if the base rent rate and operating cost rate for the period were the rate(s) in effect immediately following the end of the period.

Hazardous Substance Agreement. A Hazardous Chemical Disclosure and Access Agreement in the form of Exhibit C hereto.

Leases. All leases of space in the Property listed on Exhibit B hereto and all leases of space in the Property made after the date hereof as permitted by Section 9.2.

Permitted Exceptions. The Leases, all exceptions to title and matters shown in the Title Commitment (except mechanics' liens, the mortgages and assignments of rents and leases shown therein, and items 2-6, Schedule B of the Title Commitment) and the Survey or as permitted by Section 4.2, and all agreements and encumbrances agreed to or approved by Purchaser. *

Property. As defined in the Recitals.

Rent Credit Leases. Those Leases listed on Exhibit B hereto which are dated July 12, 1989 or earlier and (i) that certain lease dated August 8, 1988 by and between Seller and Guy Carpenter and Company; (ii) that certain lease dated November 8, 1988 by and between Seller and Berlitz International, Inc.; and (iii) that certain lease dated November 23, 1988 by and between Seller and Cummings, Keegan and Company.

Section. A section of this Agreement.

Survey. A survey of the Property by Sunde Land Surveying, Inc. dated August 3, 1989.

Title Commitment. The commitment for owner's policy of title insurance issued by Chicago Title Insurance Company, application No. C2256629, effective date June 22, 1989, committing to insure title to the Property, together with endorsement thereto dated _____, 1989.

2. Purchase Price.

2.1 Subject to the terms and provisions hereof, Seller agrees to sell, and Purchaser agrees to buy, the Property.

2.2 The purchase price shall be \$18,380,000, payable \$100,000 in earnest money upon the execution of this Agreement and the balance payable in cash to be received by Seller prior to noon (Eastern Standard Time) on the Closing Date by wire transfer to an account or accounts designated by Seller. The earnest money shall be held by Chicago Title Insurance Company in an escrow account and shall bear interest from the date of delivery at a rate equal to the rate then announced by First Bank National Association as its base or prime rate. Provided Purchaser is not in default hereunder, any interest earned on the earnest money shall be credited against the purchase price at Closing. If this Agreement is terminated pursuant to any provision hereof other than Section 12, the earnest money, and any interest thereon, shall, at the time of termination, be refunded to Purchaser.

2.3 Purchaser and Seller hereby acknowledge and agree that the original total purchase price which Purchaser would have agreed to pay for the purchase of the Property was substantially discounted due to the presence of asbestos and underground storage tanks on the Property and due to various other items of repair and improvement.

kind or character except as expressly set forth in Section 8.1, including without limitation any representations as to physical condition, value, compliance with legal requirements, or absence of toxic or hazardous substances. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, THERE IS NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY OF FITNESS FOR A SPECIFIC PURPOSE. Purchaser acknowledges that it is knowledgeable in real estate, has made such inspections of the Property as it deems appropriate, and, except as expressly set forth in Section 8.1, has not received any warranties or representations of any kind, whether written or oral.

8.3 Without in any way limiting the generality of any of the foregoing, Purchaser releases and discharges Seller from any and all claims based upon the presence in or on the Property of asbestos, PCBs, fuel oil or any other hazardous or toxic substance or environmental contaminant except for personal injury claims which relate to the foregoing and which arise prior to the Closing. In addition to and not by way of limitation of the sale of the Property on an "AS IS" basis under this Agreement, Purchaser acknowledges receipt of a copy of that certain asbestos survey report dated May, 1988, as revised August 23, 1989, prepared by the Institute for ←
Environmental Assessment ("Asbestos Survey"). The Asbestos Survey discloses the presence of asbestos at the Property. Purchaser shall not rely on and Purchaser hereby represents to Seller that it has not relied on the Asbestos Survey.

8.4 Seller hereby discloses to Purchaser the following information relating to underground tanks on the Property:

- (i) There are at least four underground fuel oil storage tanks located on the Property; and
- (ii) The approximate location and size of each storage tank is as follows:
 - (a) there are at least two 14,000 gallon storage tanks located at or near the building commonly referred to as the 6800 Building;
 - (b) there is at least one 14,000 gallon storage tank located at or near the the buildings commonly referred to as the 6700 Building and the 6750 Building; and
 - (c) there is at least one 30,000 gallon storage tank located at or near the building commonly referred to as the 6600 Building.

Seller shall have no obligation to remove, fill or otherwise deal with the underground storage tanks located on the Property, or to clean up any leakage or spill which may have occurred. Both Seller and Purchaser shall cooperate with each other for the purpose of fulfilling any reporting or recording requirements imposed by any law, ordinance, order or rule that may arise with respect to the presence on the Property of the underground storage tanks. Seller shall be liable for any

liability arising from any failure prior to the Closing Date to comply with any law, rule or regulation requiring report of or filing with respect to those underground tanks.

8.5 Seller makes no representations or warranties whatsoever to Purchaser: (i) regarding the Asbestos Survey (including, without limitation, the contents and/or accuracy thereof), (ii) regarding the presence, location or scope of any hazardous materials or chemicals in, at or under the Property, (iii) that the underground tanks referred to in Section 8.4 are all of the storage tanks on the Property, or (iv) that there has been no discharge or spill from any underground storage tank on the Property. During its due diligence period Purchaser made such studies and investigations, conducted such tests and surveys and engaged such specialists as Purchaser deemed appropriate to fairly evaluate the Property and its risks from an environmental and hazardous materials and chemicals standpoint. By its execution hereof, Purchaser hereby agrees to execute the Hazardous Substance Agreement.

8.6 Purchaser shall indemnify, defend and hold Seller harmless from and against any and all liability, loss, damage, claim, cost or expense (including attorneys' fees) which may arise or result from the presence in or on the Property of asbestos, underground storage tanks, fuel oil or other discharges, PCBs or any other hazardous or toxic substance or environmental contaminant except for claims for (i) personal

APPENDIX F

APPENDIX F

PURCHASE AGREEMENT SIDE LETTER

Prudential copy
1st Side letter +
Purchase & Sale
~~Letter~~ Agt.

November 3, 1989

The Lexington Property Fund, L.P.
9531 West 78th Street
Suite 300
Eden Prairie, Minnesota 55344

Re: Southdale Office Building

Gentlemen:

You and we are today entering into a Purchase Agreement for sale of property on France Avenue in Edina, Minnesota, commonly known as Southdale Office Building (the "Property").

As stated in Section 2.3 of the Purchase Agreement, the \$18,380,000 purchase price for the Property provided in the Purchase Agreement represents a reduction from the purchase price which would have been paid if asbestos had not been present in the Property, the Property had not included underground storage tanks, and various items of repair and improvement had not been necessary or appropriate. The items

PIS204245

The Lexington Property Fund, L.P.
Page 2

for which the purchase price was reduced, and the amount of the reductions, are as follows:

<u>Item</u>	<u>Price Reduction</u>
Asbestos	\$5,300,000.00
Underground storage tanks	90,000.00
Roof Repair	30,000.00
Drainage Improvements	70,000.00
Life Safety System Improvements	130,000.00

If you agree with the provisions of this letter,
please so indicate below.

Very truly yours,

745 PROPERTY INVESTMENTS
By [Signature] *just*
~~It is~~ Vice President *2/29*
of The Prudential Insurance Company
of America
on behalf of 745 Property Investments

The provisions of this letter are accepted:

THE LEXINGTON PROPERTY FUND, L.P.
By Lexington Partner, L.P., its General Partner,
By Richard Ellis, Inc., its General Partner,
By [Signature]
Its Lexington V.P.

JAD:jrm
4228w

PIS204246

APPENDIX G

APPENDIX G

**SUMMARY FROM MAY 1988 INSPECTION PROFILE
BY INSTITUTE FOR ENVIRONMENTAL ASSESSMENT (IEA)**

INSPECTION PROFILE
SOUTHDALE OFFICE COMPLEX
EDINA, MINNESOTA
PRISA 00609

May 1988

INSTITUTE FOR ENVIRONMENTAL ASSESSMENT
500 West Main Street
Anoka, MN 55303
(612) 427-7870

PIS

8003939

- . Maintenance or servicing fire protection system.
 - . Maintenance or servicing electrical system.
 - . Maintenance, servicing or alteration of existing supply air ducts.
 - . Any other maintenance or servicing activities which would require the ceiling panels to be removed creating an avenue for contamination into the building (breathing zone), especially in conjunction with work which may abrade or disrupt the asbestos-bearing fire retardant.
2. The potential for disturbance or disruption of the fire retardant by water exists primarily from the use of the air plenum chamber for the routing of HVAC system piping and control valves. Water damage to fire retardant materials can exacerbate material deterioration. It is possible that material disturbance could occur if a control valve failed and created a higher than normal pressure of escaping water, thus impacting the fire retardant material and weakening the constituents used to bind the asbestos fibers, creating subsequent deterioration.
 3. Normal building activities, mechanical vibration, restructuring of office configuration etc., can increase material deterioration and disruption.
 4. In addition to the above routes of contamination, the natural deterioration over time of material being released from the load-bearing structure results in debris on the ceiling panels and contributes to the above mentioned routes of contamination. Any of the above circumstances may create a path for this material to enter into the breathing zone of employees and occupants.

SUMMARY

Our survey of the 6800 building of the Southdale Office Center revealed the use of asbestos-containing building materials. We found approximately 382 sq. ft. of thermal system insulation, 200 in. ft. of covered pipe insulation, 170 pipe elbows, and 214,000 sq. ft. of sprayed-on fire retardant. Additionally, 146,000 sq. ft. of sprayed-on ceiling material found within the building was tested and found to be non-asbestos containing. Although analysis of the samples indicated the material to be asbestos free, it cannot be stated with complete certainty that the material has not become contaminated due to deterioration and fall-out of the asbestos-containing fire retardant above it.

Our survey of the 6750 building of the Southdale Office Center revealed the use of asbestos-containing materials also. We found approximately 60 pipe elbows, 252 sq. ft. of textured ceiling material, and 2,390 sq. ft. of asbestos-containing ceiling tile.

In the 6700 building of the Southdale Office Center, we found approximately 4,423 sq. ft. of asbestos-containing ceiling tile and 4 pipe elbows. None of the materials tested in building 6600 were found to contain asbestos.

The following is a cost estimate for removal and replacement of the remaining asbestos-containing material in the building. Not included is the cost of a 3rd party consultant to monitor the project. These costs generally range from 20-30% of the actual cost of the project.

It should be noted that the changes in retail price of consumed materials, hourly rates for abatement professionals and support, variance in the actual amount of material affected, and the degree of difficulty in implementing and executing abatement procedures will have a potential influence on cost. Some margin of allowance for such conditions has been built in, but one or more significantly different factors could skew costs beyond the currently defined range.

<u>6800 Building</u>	<u>Removal</u>	<u>Replacement</u>
Sprayed-on fire retardant (360,000 sq. ft.)	\$4,680,000.00	\$360,000.00
200 lineal feet thermal system insulation	\$1,800.00	\$1,600.00
170 pipe elbows	\$2,700.00	\$2,400.00
382 sq. ft. of thermal jackets	<u>\$2,000.00</u>	<u>\$1,800.00</u>
6800 Building Total:	\$4,686,500.00	\$365,800.00
<u>6750 Building</u>	<u>Removal</u>	<u>Replacement</u>
2,390 sq. ft. of asbestos-containing ceiling tile	\$6,000.00	\$3,300.00
252 sq. ft. of textured ceiling material	\$2,500.00	\$700.00
60 pipe elbows	<u>\$1,000.00</u>	<u>\$900.00</u>
6750 Building Total:	\$9,500.00	\$4,900.00

<u>6700 Building</u>	<u>Removal</u>	<u>Replacement</u>
4,423 sq. ft. asbestos containing ceiling tile	\$11,000.00	\$6,000.00
4 pipe elbows	<u>\$64.00</u>	<u>\$50.00</u>
6700 Building Total:	\$11,064.00	\$6,050.00
 <u>6600 Building</u>	 <u>Removal</u>	 <u>Replacement</u>
6600 Building Total:	0	0

total for all Bldgs
12-31-87 + prior
 5,083,814
 1500

 5,085,314

APPENDIX H

APPENDIX H

AUGUST 23, 1989 IEA LETTER REPORT

AUG 23 '89 14:29

P.2



INSTITUTE FOR ENVIRONMENTAL ASSESSMENT

2029 Verdale Avenue, Anoka, Minnesota 55303

(612) 427-5310

1-800-233-8513 • In Minnesota 1-800-247-1303

A Minnesota Corporation

JUAN NEPHEV
EXECUTIVE DIRECTOR

August 23, 1989

Mr. Paul H. Geyer
Prudential Realty Group Office
1 Prudential Plaza, Suite 3300
Chicago, IL 60601

Dear Mr. Geyer:

At your request, the Institute has reviewed the environmental audit of the Southdale Office Centre, 6600, 6700, 6750, and 6800 France Avenue South, Edina, Minnesota, dated August 11, 1989 from Boelter Associates, Incorporated (BAI). The following comments are based upon our review of Appendix B, "Economic Analysis of the ACM Abatement", our knowledge of the Twin City market prices and previous ACM removal experience in the Southdale Office Centre.

1. The unit prices for ACM sprayed-on fire proofing removal and re-insulation (identified in Appendix B) tend to be somewhat high for the Twin Cities market. The following breakdown of unit prices are based on the Institute's experience of designing, managing and monitoring over 100 abatement projects this year.

ASBESTOS-CONTAINING
MATERIAL

UNIT
PRICES

✓ Sprayed-on Fire Proofing	\$15.00 - \$22.00 SQ. FT.
✓ Mechanical Equipment Insulation	\$15.00 - \$20.00 SQ. FT.
Pipe Insulation	\$25.00 - \$40.00 LIN. FT.
Pipe Fitting Insulation (per fitting)	\$30.00 - \$40.00
✓ Ceiling Tiles	\$ 4.00 - \$ 6.00 SQ. FT.
✓ Ceiling Plaster	\$10.00 - \$12.00 SQ. FT.
VAT & Ceramic Tile Mastic	\$ 3.00 - \$ 4.00 SQ. FT.
Waste Disposal	\$39.00 CU. YD.

The prices which vary from BAI's estimates are sprayed-on fire proofing, mechanical equipment insulation, ceiling tiles and ceiling plaster. The others tend to compare

PIS 00163876